

=> file\registry  
FILE 'REGISTRY' ENTERED AT 11:35:59 ON 25 JAN 2006  
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Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 24 JAN 2006 HIGHEST RN 872575-89-8  
DICTIONARY FILE UPDATES: 24 JAN 2006 HIGHEST RN 872575-89-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS  
for details.

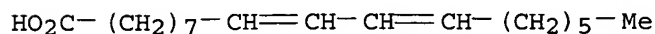
REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> d L3 ide

L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN  
RN 1839-11-8 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN Δ9,11-Octadecadienoic acid  
CN 9,11-Linoleic acid  
CN CLA 80  
CN Conjugated linoleic acid  
CN Nouracid DE 554  
CN NSC 7886  
CN Ricineic acid  
CN Ricinenic acid  
CN Selin CLA  
FS 3D CONCORD  
MF C18 H32 O2  
CI COM  
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOSIS, CA, CAOLD,  
CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, EMBASE, IFICDB, IFIPAT,  
IFIUDB, MEDLINE, PIRA, PROMT, RTECS\*, TOXCENTER, USPAT2, USPATFULL

(\*File contains numerically searchable property data)  
Other Sources: NDSL\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

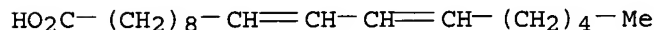


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

409 REFERENCES IN FILE CA (1907 TO DATE)  
44 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
410 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
14 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d L4 ide

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN  
RN 22880-03-1 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C18 H32 O2  
CI COM  
LC STN Files: AGRICOLA, BEILSTEIN\*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT,  
IFICDB, IFIUDB, TOXCENTER, USPAT2, USPATFULL  
(\*File contains numerically searchable property data)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

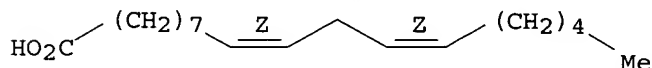
77 REFERENCES IN FILE CA (1907 TO DATE)  
10 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
77 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d L2 ide

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN  
RN 60-33-3 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN 9,12-Octadecadienoic acid (9Z,12Z) - (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN 9,12-Octadecadienoic acid (Z,Z)-  
CN Linoleic acid (8CI) ← substance converted to CLA  
OTHER NAMES:  
CN (9Z,12Z)-9,12-Octadecadienoic acid  
CN (Z,Z)-9,12-Octadecadienoic acid  
CN α-Linoleic acid  
CN 9,12-Octadecadienoic acid, (Z,Z)-  
CN 9-cis,12-cis-Linoleic acid  
CN 9Z,12Z-Linoleic acid  
CN 9Z,12Z-Octadecadienoic acid

CN all-cis-9,12-Octadecadienoic acid  
 CN cis,cis-Linoleic acid  
 CN cis-Δ9,12-Octadecadienoic acid  
 CN cis-9,cis-12-Octadecadienoic acid  
 CN Emersol 315  
 CN Extra Linoleic 90  
 CN Linolic acid  
 CN Polylin 515  
 CN Unifac 6550  
 FS STEREOSEARCH  
 MF C18 H32 O2  
 CI COM  
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOSIS, BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHM, CSNB, DDFU, DETHERM\*, DIOGENES, DIPPR\*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PATDPASPC, PDLCOM\*, PIRA, PROMT, RTECS\*, SPECINFO, TOXCENTER, TULSA, USPAT2, USPATFULL, VETU  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)

Double bond geometry as shown.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

34810 REFERENCES IN FILE CA (1907 TO DATE)  
 1442 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 34890 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 10 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d L5 ide

L5 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN  
 RN 693-72-1 REGISTRY  
 ED Entered STN: 16 Nov 1984  
 CN 11-Octadecenoic acid, (11E)- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 11-Octadecenoic acid, (E)- (8CI)  
 CN vaccenic acid (6CI) ← substance converted to CLA  
 OTHER NAMES:  
 CN (E)-11-Octadecenoic acid  
 CN (E)-Octadec-11-enoic acid  
 CN 11(E)-Octadecenoic acid  
 CN 11-trans-Octadecenoic acid  
 CN trans-Δ11-Octadecenoic acid  
 CN trans-11-Octadecenoic acid  
 CN trans-Vaccenic acid  
 FS STEREOSEARCH  
 MF C18 H34 O2  
 CI COM  
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOSIS, BIOTECHNO, CA, CAOLD,

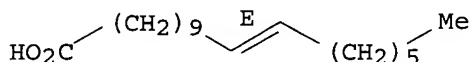
CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, DDFU, DETHERM\*, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK\*, NAPRALERT, NIOSHTIC, SYNTHLINE, TOXCENTER, TULSA, USPAT2, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

Double bond geometry as shown.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

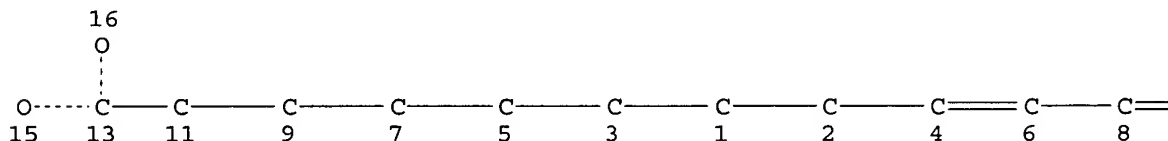
941 REFERENCES IN FILE CA (1907 TO DATE)

13 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

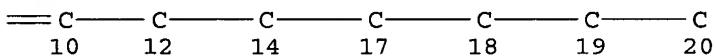
945 REFERENCES IN FILE CAPLUS (1907 TO DATE)

15 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> => d stat que L7  
L6 STR



Page 1-A



Page 1-B

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE

L7 88 SEA FILE=REGISTRY FAM FUL L6

*Family search*

100.0% PROCESSED 3472 ITERATIONS

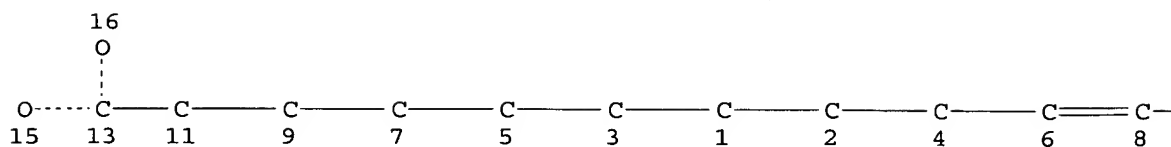
88 ANSWERS

SEARCH TIME: 00.00.01

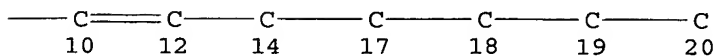
=> d stat que L9

L8 STR





Page 1-A



Page 1-B

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE

~~L9~~ 29 SEA FILE=REGISTRY FAM FUL L8*Family search*

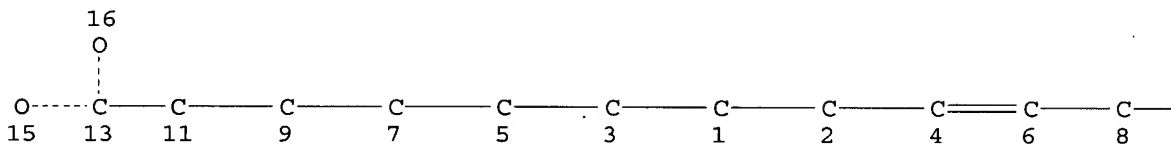
100.0% PROCESSED 3472 ITERATIONS

29 ANSWERS

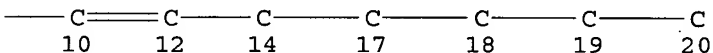
SEARCH TIME: 00.00.01

=&gt; d stat que L11

L10 STR



Page 1-A



Page 1-B

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE

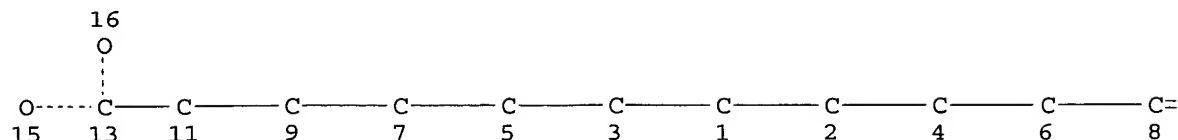
~~L11~~ 1622 SEA FILE=REGISTRY FAM FUL L10*family search*

100.0% PROCESSED 4212 ITERATIONS

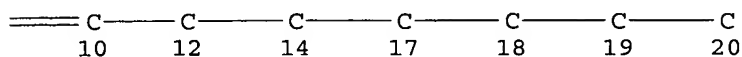
1622 ANSWERS

SEARCH TIME: 00.00.01

=> d stat que L13  
L12 STR



Page 1-A



Page 1-B

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE

L13 73 SEA FILE=REGISTRY FAM FUL L12

*Family search*

100.0% PROCESSED 14312 ITERATIONS

73 ANSWERS

SEARCH TIME: 00.00.01

=> => file hcaplus

FILE 'HCAPLUS' ENTERED AT 12:19:27 ON 26 JAN 2006

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*AUTHOR SEARCH*

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FILE COVERS 1907 - 26 Jan 2006 VOL 144 ISS 5

FILE LAST UPDATED: 25 Jan 2006 (20060125/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> d que nos L76

```

L74      1313 SEA FILE=HCAPLUS ABB=ON PLU=ON COOK M?/AU
L75      12 SEA FILE=HCAPLUS ABB=ON PLU=ON BUTZ D?/AU
L76      3 SEA FILE=HCAPLUS ABB=ON PLU=ON L74 AND L75

```

=> d que nos L77

```

L6        STR
L7        88 SEA FILE=REGISTRY FAM FUL L6
L8        STR
L9        29 SEA FILE=REGISTRY FAM FUL L8
L10       STR
L11       1622 SEA FILE=REGISTRY FAM FUL L10
L12       STR
L13       73 SEA FILE=REGISTRY FAM FUL L12
L15       1344 SEA FILE=HCAPLUS ABB=ON PLU=ON L7
L16       705 SEA FILE=HCAPLUS ABB=ON PLU=ON L9
L17       38331 SEA FILE=HCAPLUS ABB=ON PLU=ON L11
L18       3693 SEA FILE=HCAPLUS ABB=ON PLU=ON L13
L74       1313 SEA FILE=HCAPLUS ABB=ON PLU=ON COOK M?/AU
L75       12 SEA FILE=HCAPLUS ABB=ON PLU=ON BUTZ D?/AU
L77       42 SEA FILE=HCAPLUS ABB=ON PLU=ON (L74 OR L75) AND (L15 OR L16
OR L17 OR L18)

```

=> s L76-L77

```

L165      43 (L76 OR L77)

```

=> file medline

```

FILE 'MEDLINE' ENTERED AT 12:19:31 ON 26 JAN 2006

```

FILE LAST UPDATED: 25 JAN 2006 (20060125/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.

The MEDLINE reload for 2006 will soon be available. For details on the 2005 reload, enter HELP RLOAD at an arrow prompt (=).  
See also:

```

http://www.nlm.nih.gov/mesh/
http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html
http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html

```

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

This file contains CAS Registry Numbers for easy and accurate

=> d que nos L72

```

L70      982 SEA FILE=MEDLINE ABB=ON PLU=ON COOK M?/AU
L71      14 SEA FILE=MEDLINE ABB=ON PLU=ON BUTZ D?/AU
L72      1 SEA FILE=MEDLINE ABB=ON PLU=ON L70 AND L71

```

=> d que nos L73

```

L6          STR
L7          88 SEA FILE=REGISTRY FAM FUL L6
L8          STR
L9          29 SEA FILE=REGISTRY FAM FUL L8
L12         STR
L13         73 SEA FILE=REGISTRY FAM FUL L12
L41         66 SEA FILE=MEDLINE ABB=ON PLU=ON L7
L42         SEL PLU=ON L7 1- CHEM :      143 TERMS
L43         1454 SEA FILE=MEDLINE ABB=ON PLU=ON L42
L44         0 SEA FILE=MEDLINE ABB=ON PLU=ON L9
L45         SEL PLU=ON L9 1- CHEM :      57 TERMS
L46         187 SEA FILE=MEDLINE ABB=ON PLU=ON L45
L50         7695 SEA FILE=MEDLINE ABB=ON PLU=ON LINOLEIC ACIDS+NT/CT
L52         78 SEA FILE=MEDLINE ABB=ON PLU=ON L13
L53         SEL PLU=ON L13 1- CHEM :    107 TERMS
L54         1128 SEA FILE=MEDLINE ABB=ON PLU=ON L53
L55         1454 SEA FILE=MEDLINE ABB=ON PLU=ON L41 OR L43
L56         187 SEA FILE=MEDLINE ABB=ON PLU=ON L44 OR L46
L57         1128 SEA FILE=MEDLINE ABB=ON PLU=ON L52 OR L54
L70         982 SEA FILE=MEDLINE ABB=ON PLU=ON COOK M?/AU
L71         14 SEA FILE=MEDLINE ABB=ON PLU=ON BUTZ D?/AU
L73         21 SEA FILE=MEDLINE ABB=ON PLU=ON (L70 OR L71) AND ((L55 OR L56
          OR L57) OR L50)

```

=> s L72-L73

L166 21 (L72 OR L73)

=> file embase

FILE 'EMBASE' ENTERED AT 12:19:33 ON 26 JAN 2006  
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FILE COVERS 1974 TO 19 Jan 2006 (20060119/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

=> d que nos L132

```

L130       760 SEA FILE=EMBASE ABB=ON PLU=ON COOK M?/AU
L131       14 SEA FILE=EMBASE ABB=ON PLU=ON BUTZ D?/AU
L132       1 SEA FILE=EMBASE ABB=ON PLU=ON L130 AND L131

```

=> d que nos L133

```

L3          1 SEA FILE=REGISTRY ABB=ON PLU=ON 9,11-OCTADECADIENOIC ACID/CN
L4          1 SEA FILE=REGISTRY ABB=ON PLU=ON 10,12-OCTADECADIENOIC
          ACID/CN
L6          STR
L7          88 SEA FILE=REGISTRY FAM FUL L6
L8          STR
L9          29 SEA FILE=REGISTRY FAM FUL L8

```

```

L12      STR
L13      73 SEA FILE=REGISTRY FAM FUL L12
L79      5 SEA FILE=EMBASE ABB=ON PLU=ON L7
L86      SEL PLU=ON L3 1- CHEM : 11 TERMS
L87      852 SEA FILE=EMBASE ABB=ON PLU=ON L86
L88      0 SEA FILE=EMBASE ABB=ON PLU=ON L9
L90      SEL PLU=ON L4 1- CHEM : 2 TERMS
L91      38 SEA FILE=EMBASE ABB=ON PLU=ON L90
L92      178 SEA FILE=EMBASE ABB=ON PLU=ON L13
L93      SEL PLU=ON L13 1- CHEM : 107 TERMS
L94      706 SEA FILE=EMBASE ABB=ON PLU=ON L93
L95      852 SEA FILE=EMBASE ABB=ON PLU=ON L79 OR L87
L96      38 SEA FILE=EMBASE ABB=ON PLU=ON L88 OR L91
L97      706 SEA FILE=EMBASE ABB=ON PLU=ON L92 OR L94
L98      8251 SEA FILE=EMBASE ABB=ON PLU=ON LINOLEIC ACID/CT
L99      8 SEA FILE=EMBASE ABB=ON PLU=ON LINOLEIC ACID CONJUGATE/CT
L100     40 SEA FILE=EMBASE ABB=ON PLU=ON LINOLEIC ACID DERIVATIVE/CT
L101     60 SEA FILE=EMBASE ABB=ON PLU=ON LINOLEIC ACID ETHYL ESTER/CT
L102     123 SEA FILE=EMBASE ABB=ON PLU=ON LINOLEIC ACID METHYL ESTER/CT
L130     760 SEA FILE=EMBASE ABB=ON PLU=ON COOK M?/AU
L131     14 SEA FILE=EMBASE ABB=ON PLU=ON BUTZ D?/AU
L133     19 SEA FILE=EMBASE ABB=ON PLU=ON (L95 OR L96 OR L97 OR L98 OR
      L99 OR L100 OR L101 OR L102) AND (L130 OR L131)

```

=> s L132-L133

L167 19 (L132 OR L133)

=> file biosis

FILE BIOSIS ENTERED AT 12:19:36 ON 26 JAN 2006  
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FILE COVERS 1969 TO DATE.  
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNS) PRESENT  
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 25 January 2006 (20060125/ED)

=> d que nos L136

```

L134     1299 SEA FILE=BIOSIS ABB=ON PLU=ON COOK M?/AU
L135      8 SEA FILE=BIOSIS ABB=ON PLU=ON BUTZ D?/AU
L136     5 SEA FILE=BIOSIS ABB=ON PLU=ON L134 AND L135

```

=> d que nos L164

```

L6      STR
L7      88 SEA FILE=REGISTRY FAM FUL L6
L8      STR
L9      29 SEA FILE=REGISTRY FAM FUL L8
L12     STR
L13     73 SEA FILE=REGISTRY FAM FUL L12
L134    1299 SEA FILE=BIOSIS ABB=ON PLU=ON COOK M?/AU
L135     8 SEA FILE=BIOSIS ABB=ON PLU=ON BUTZ D?/AU
L137    1159 SEA FILE=BIOSIS ABB=ON PLU=ON L7
L138    SEL PLU=ON L7 1- CHEM : 143 TERMS

```

L139 2260 SEA FILE=BIOSIS ABB=ON PLU=ON L138  
L140 59 SEA FILE=BIOSIS ABB=ON PLU=ON L9  
L141 SEL PLU=ON L9 1- CHEM : 57 TERMS  
L142 220 SEA FILE=BIOSIS ABB=ON PLU=ON L141  
L143 300 SEA FILE=BIOSIS ABB=ON PLU=ON L13  
L144 SEL PLU=ON L13 1- CHEM : 107 TERMS  
L145 2140 SEA FILE=BIOSIS ABB=ON PLU=ON L144  
L146 5115 SEA FILE=BIOSIS ABB=ON PLU=ON LINOLEIC ACID/CT  
L147 2260 SEA FILE=BIOSIS ABB=ON PLU=ON L137 OR L139  
L148 220 SEA FILE=BIOSIS ABB=ON PLU=ON L140 OR L142  
L149 2140 SEA FILE=BIOSIS ABB=ON PLU=ON L143 OR L145  
L150 78 SEA FILE=BIOSIS ABB=ON PLU=ON HYPERSENSITIV? (3A) (TYPE III  
OR TYPE 3)  
L152 53773 SEA FILE=BIOSIS ABB=ON PLU=ON RHEUMATOID ARTHRITIS  
L153 1059 SEA FILE=BIOSIS ABB=ON PLU=ON ARTHUS  
L154 806 SEA FILE=BIOSIS ABB=ON PLU=ON SERUM SICKN?  
L155 2279 SEA FILE=BIOSIS ABB=ON PLU=ON ANTIRHEUMAT?  
L156 1051 SEA FILE=BIOSIS ABB=ON PLU=ON IMMUNE COMPLEX DIS?  
L157 17925 SEA FILE=BIOSIS ABB=ON PLU=ON GLOMERULONEPHRIT?  
L158 31618 SEA FILE=BIOSIS ABB=ON PLU=ON LUPUS ERYTHEMAT? (3A) SYSTEMIC  
  
L163 60 SEA FILE=BIOSIS ABB=ON PLU=ON (L134 OR L135) AND (L146 OR  
L147 OR L148 OR L149)  
L164 3 SEA FILE=BIOSIS ABB=ON PLU=ON L163 AND (L150 OR (L152 OR  
L153 OR L154 OR L155 OR L156 OR L157 OR L158))

=> s L136 or L164

L168 8 L136 OR L164

=> => dup rem L165 L166 L167 L168

FILE 'HCAPLUS' ENTERED AT 12:21:05 ON 26 JAN 2006

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FILE 'MEDLINE' ENTERED AT 12:21:05 ON 26 JAN 2006

FILE 'EMBASE' ENTERED AT 12:21:05 ON 26 JAN 2006

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FILE 'BIOSIS' ENTERED AT 12:21:05 ON 26 JAN 2006

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PROCESSING COMPLETED FOR L165

PROCESSING COMPLETED FOR L166

PROCESSING COMPLETED FOR L167

PROCESSING COMPLETED FOR L168

L169 56 DUP REM L165 L166 L167 L168 (35 DUPLICATES REMOVED)

ANSWERS '1-43' FROM FILE HCAPLUS

ANSWERS '44-49' FROM FILE MEDLINE

ANSWERS '50-51' FROM FILE EMBASE

ANSWERS '52-56' FROM FILE BIOSIS

=> d ibib abs hitind hitstr L169 1-43; d iall L169 44-56

L169 ANSWER 1 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2005:1083022 HCAPLUS

DOCUMENT NUMBER: 143:359692

TITLE: 10t,12c-conjugated linoleic acid inhibits

lipopolysaccharide-induced cyclooxygenase expression  
in vitro and in vivo

AUTHOR(S): Li, Guangming; Barnes, David; Butz, Daniel;  
Bjorling, Dale; Cook, Mark E.

CORPORATE SOURCE: Molecular and Environmental Toxicology, University of  
Wisconsin-Madison, Madison, WI, 53706, USA

SOURCE: Journal of Lipid Research (2005), 46(10), 2134-2142  
CODEN: JLPRAW; ISSN: 0022-2275

PUBLISHER: American Society for Biochemistry and Molecular  
Biology, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Previous data demonstrated that conjugated linoleic acid (CLA) reduced eicosanoid release from select organs. We hypothesized that one active CLA isomer was responsible for the reduced prostaglandin release and that the mechanism was through the inhibition of inducible cyclooxygenase-2 (COX-2). Here, we examined the effects of trans-10,cis-12-CLA and cis-9,trans-11-CLA on COX-2 protein/mRNA expression, prostaglandin E2 (PGE2) production, and the mechanism by which CLA affects COX-2 expression and prostaglandin release. The COX-2 protein expression level was inhibited 80% by trans-10,cis-12-CLA and 26% by cis-9,trans-11-CLA at 100  $\mu$ M in vitro. PGE2 production was decreased from 5.39 to 1.12 ng/2+106 cells by trans-10,cis-12-CLA and from 5.7 to 4.5 ng/2+106 cells by cis-9,trans-11-CLA at 100  $\mu$ M. Mice fed trans-10,cis-12-CLA but not cis-9,trans-11-CLA were found to have a 34% decrease in COX-2 protein and a 43% reduction of PGE2 release in the lung. Trans-10,cis-12-CLA reduced COX-2 mRNA expression level by 30% at 100  $\mu$ M in vitro and by 30% in mouse lung in vivo. Reduced COX-2 mRNA was attributable to an inhibition of the nuclear factor  $\kappa$ B (NF- $\kappa$ B) pathway by trans-10,cis-12-CLA. These data suggested that the inhibition of NF- $\kappa$ B was one of the mechanisms for the reduced COX-2 expression and PGE2 release by trans-10,cis-12-CLA.

CC 1-7 (Pharmacology)

Section cross-reference(s): 18

IT 2420-56-6, trans-10,cis-12-Conjugated linoleic acid

2540-56-9, cis-9,trans-11-Conjugated linoleic acid

RL: PAC (Pharmacological activity); BIOL (Biological study)  
(conjugated linoleic acid inhibits lipopolysaccharide-induced cyclooxygenase expression in vitro and in vivo)

IT 2420-56-6, trans-10,cis-12-Conjugated linoleic acid

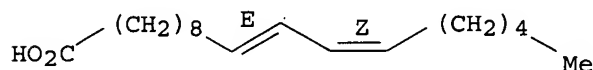
2540-56-9, cis-9,trans-11-Conjugated linoleic acid

RL: PAC (Pharmacological activity); BIOL (Biological study)  
(conjugated linoleic acid inhibits lipopolysaccharide-induced cyclooxygenase expression in vitro and in vivo)

RN 2420-56-6 HCAPLUS

CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

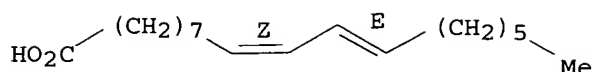
Double bond geometry as shown.



RN 2540-56-9 HCAPLUS

CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 2 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 2005:319387 HCAPLUS

DOCUMENT NUMBER: 143:96626

TITLE: Effects of trans-10, cis-12 conjugated linoleic acid and cognates on apolipoprotein B secretion in HepG2 cells

AUTHOR(S): Storkson, Jayne M.; Park, Yeonhwa; Cook, Mark E.; Pariza, Michael W.

CORPORATE SOURCE: Department of Food Microbiology and Toxicology, Food Research Institute, University of Wisconsin-Madison, Madison, WI, 53706, USA

SOURCE: Nutrition Research (New York, NY, United States) (2005), 25(4), 387-399

CODEN: NTRSDC; ISSN: 0271-5317

PUBLISHER: Elsevier Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Conjugated linoleic acid (CLA) has been shown to decrease apolipoprotein B (apoB) secretion in HepG2 cells. The purpose of this study was to determine the activity of individual CLA isomers-and to test cognates that are structurally related to CLA-with regard to apoB secretion. Trans-10, cis-12 CLA decreased apoB secretion whereas cis-9, trans-11, cis-9, cis-11, trans-9, trans-11, and the chloride, alc., or amide forms of CLA had no effect on apoB secretion. Trans-9, cis-12 octadecadienoic acid had no effect whereas cis-9, cis-12 octadecadienoic acid (linoleic acid) enhanced apoB secretion. Among 18-carbon monounsaturated fatty acids tested, only trans-10 octadecenoic acid decreased apoB secretion. Trans-11, trans-12, trans-13, cis-9, cis-11, and cis-13 octadecenoic acids increased apoB secretion whereas trans-9 and cis-12 octadecenoic acids were without effect. None of the 20-carbon compounds tested or cis-12 octadecenoic acid had an effect on apoB secretion. Conjugated nonadecadienoic acid decreased apoB secretion whereas cis-10, cis-13 nonadecadienoic acid did not. The reduction of apoB secretion by CLA mixture is caused by the unique structural features of trans-10, cis-12 CLA. A trans double bond at the 10th position appears to be a key structure involved in the inhibition of apoB secretion.

CC 18-5 (Animal Nutrition)

Section cross-reference(s): 13

IT 112-80-1, 9-Octadecenoic acid (9Z)-, biological studies 544-70-7

693-72-1 872-23-1 2420-42-0 2420-56-6

298216-31-6

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(effects of trans-10, cis-12 conjugated linoleic acid and cognates on apolipoprotein B secretion in HepG2 cells)

IT 60-33-3, Linoleic acid, biological studies 112-79-8

506-17-2 693-71-0 1783-84-2 2540-56-9 5598-38-9

5684-82-2 13126-37-9 13126-38-0 13126-39-1 26322-26-9 29204-20-4

30643-68-6, Nonadecadienoic acid 80625-60-1 105835-45-8 113515-93-8

121250-47-3, Conjugated linoleic acid 544447-17-8 857025-57-1

857025-58-2, 9,10-Octadecadien-1-ol 857025-59-3, 9,10-Octadecadienamide

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL



(Biological study)

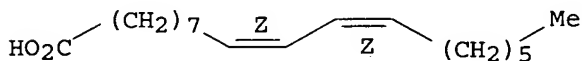
(effects of trans-10,cis-12 conjugated linoleic acid and cognates on apolipoprotein B secretion in HepG2 cells)

IT 544-70-7 693-72-1 872-23-1 2420-42-0  
2420-56-6RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(effects of trans-10,cis-12 conjugated linoleic acid and cognates on apolipoprotein B secretion in HepG2 cells)

RN 544-70-7 HCAPLUS

CN 9,11-Octadecadienoic acid, (9Z,11Z) - (9CI) (CA INDEX NAME)

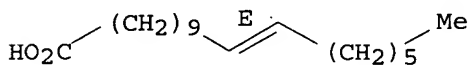
Double bond geometry as shown.



RN 693-72-1 HCAPLUS

CN 11-Octadecenoic acid, (11E) - (9CI) (CA INDEX NAME)

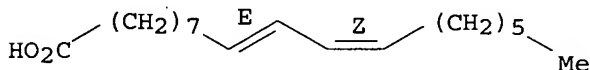
Double bond geometry as shown.



RN 872-23-1 HCAPLUS

CN 9,11-Octadecadienoic acid, (9E,11Z) - (9CI) (CA INDEX NAME)

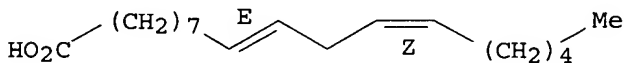
Double bond geometry as shown.



RN 2420-42-0 HCAPLUS

CN 9,12-Octadecadienoic acid, (9E,12Z) - (9CI) (CA INDEX NAME)

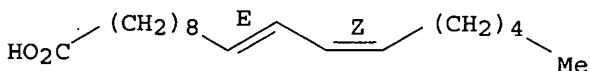
Double bond geometry as shown.



RN 2420-56-6 HCAPLUS

CN 10,12-Octadecadienoic acid, (10E,12Z) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.

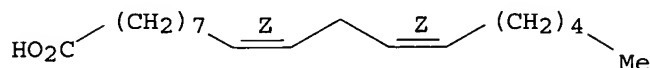
IT 60-33-3, Linoleic acid, biological studies 506-17-2  
2540-56-9RL: BSU (Biological study, unclassified); PRP (Properties); BIOL  
(Biological study)  
(effects of trans-10,cis-12 conjugated linoleic acid and cognates on

apolipoprotein B secretion in HepG2 cells)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

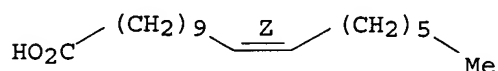
Double bond geometry as shown.



RN 506-17-2 HCAPLUS

CN 11-Octadecenoic acid, (11Z)- (9CI) (CA INDEX NAME)

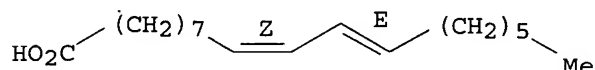
Double bond geometry as shown.



RN 2540-56-9 HCAPLUS

CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 3 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 2004:1123158 HCAPLUS

DOCUMENT NUMBER: 142:279326

TITLE: The effect of dietary conjugated linoleic acid on egg yolk fatty acids and hatchability in Japanese quail

AUTHOR(S): Aydin, R.; Cook, M. E.

CORPORATE SOURCE: Department of Animal Science, Kahramanmaras Sutcu Imam University, Kahramanmaras, Turk.

SOURCE: Poultry Science (2004), 83(12), 2016-2022

CODEN: POSCAL; ISSN: 0032-5791

PUBLISHER: Poultry Science Association, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Conjugated linoleic acid (CLA) increased the ratio of saturated fatty acids to monounsaturated fatty acids in yolk and caused embryo mortality. The authors' preliminary studies showed that CLA had less of an effect on hatchability of quail than chickens. Hence, the objective was to determine the effects of dietary CLA on quail egg fatty acid content and hatchability. Eight male-female Japanese quail pairs per group were randomly assigned to diets containing 0 (canola oil; CO), 0.25, 0.5, 1, 2, or 3% CLA for 8 wk. Eggs were collected, held at 15°C for 24 h, and then incubated. Three eggs from each group were collected for fatty acid anal. on the 45th day. At the end of the 8 wk, all quail were euthanized. Liver samples from female quail were obtained for fatty acid anal. Diet containing 3, 2, or 1% CLA caused 100% embryo mortality after 6, 10, or 12 d of feeding, whereas overall hatchabilities in groups 0, 0.25, and 0.5 were 84, 86, and 64%,

resp. As the dietary CLA increased, egg and hepatic CLA increased, C16:0 increased and C16:1(n-7) and C18:1(n-9) decreased, whereas C18:0 remained unchanged. Diets containing 1, 2, or 3% CLA decreased the C20:4(n-6) levels in yolk (significantly) and liver (inconsistently) lipids. Yolk CLA levels from 0, 0.25, 0.5, 1, 2, and 3% CLA were 0.31, 0.90, 1.48, 2.44, 5.88, and 11.2%, resp. The ratios of C16:0/C16:1(n-7) in yolks from groups fed 0, 0.25, 0.5, 1, 2, or 3% CLA were 8.2, 16.3, 20.4, 24.6, 26.1, and 28.6, resp. The ratios of C18:0/C18:1(n-9) in yolks from hens fed 0, 0.25, 0.5, 1, 2, or 3% CLA were 0.28, 0.40, 0.48, 0.49, 0.69, and 0.83, resp. Quail fed 0.25% CLA had increased egg size, whereas quail fed 2 or 3% had reduced egg size compared with those fed CO. Liver sizes (%) in all of the groups were increased, except for the group fed 0.25% CLA. These data suggest that CLA may affect hatchability possibly by changing the fatty acid composition of the yolk.

CC 18-5 (Animal Nutrition)

IT 2420-56-6 2540-56-9

RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)

(effect of dietary conjugated linoleic acid on egg yolk fatty acids and hatchability in Japanese quail)

IT 57-10-3, Hexadecanoic acid, biological studies 57-11-4, Octadecanoic acid, biological studies 60-33-3, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies 112-80-1, 9-Octadecenoic acid (9Z)-, biological studies 373-49-9 463-40-1,  $\alpha$ -Linolenic acid 506-26-3,  $\gamma$ -Linolenic acid 506-32-1 544-63-8, Tetradecanoic acid, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(effect of dietary conjugated linoleic acid on egg yolk fatty acids and hatchability in Japanese quail)

IT 2420-56-6 2540-56-9

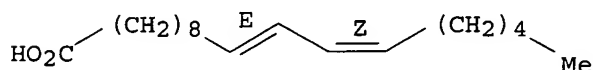
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)

(effect of dietary conjugated linoleic acid on egg yolk fatty acids and hatchability in Japanese quail)

RN 2420-56-6 HCAPLUS

CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

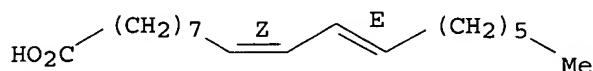
Double bond geometry as shown.



RN 2540-56-9 HCAPLUS

CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT 60-33-3, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies

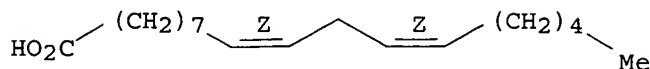
RL: BSU (Biological study, unclassified); BIOL (Biological study)

(effect of dietary conjugated linoleic acid on egg yolk fatty acids and hatchability in Japanese quail)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 4 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 2004:733482 HCAPLUS

DOCUMENT NUMBER: 141:410294

TITLE: Structure-activity relationship of conjugated linoleic acid and its cognates in inhibiting heparin-releasable lipoprotein lipase and glycerol release from fully differentiated 3T3-L1 adipocytes

AUTHOR(S): Park, Yeonhwa; Storkson, Jayne M.; Liu, Wei; Albright, Karen J.; Cook, Mark E.; Pariza, Michael W.

CORPORATE SOURCE: Food Research Institute, University of Wisconsin-Madison, Madison, WI, 53706, USA

SOURCE: Journal of Nutritional Biochemistry (2004), 15(9), 561-568

CODEN: JNBIEL; ISSN: 0955-2863

PUBLISHER: Elsevier Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Conjugated linoleic acid (CLA) reduces body fat in part by inhibiting the activity of heparin-releasable lipoprotein lipase (HR-LPL) activity in adipocytes, an effect that is induced by the trans-10,cis-12 CLA isomer. In this study we used a series of compds. that are structurally related to CLA (i.e., CLA cognates) to investigate the structural basis for this phenomenon. None of the 18:1 CLA cognates that were tested, nor trans-9,cis-12 18:2, cis-12-octadecen-10-ynoic acid (10y,cis-12) or 11-(2'-(n-pentyl)phenyl)-10-undecylenic acid (designated P-t10), exhibited any significant effect on HR-LPL activity. Among the CLA derivs. (alc., amide, and chloride) that were tested, only the alc. form inhibited HR-LPL activity, although to a lesser extent than CLA itself. In addition, intracellular TG was reduced only by trans-10,cis-12 CLA and the alc. form of CLA. Hence it appears that the trans-10,cis-12 conjugated double bond in conjunction with a carboxyl group at C-1 is required for inhibition of HR-LPL activity, and that an alc. group can partially substitute for the carboxyl group. We also studied glycerol release from the cells, observing that this was enhanced by trans-10 18:1, trans-13 18:1, cis-12 18:1, cis-13 18:1, P-t10 but was reduced by cis-9 18:1, the alc. and amide forms of CLA or 10y,cis-12. Accordingly the structural feature or features involved in regulating lipolysis appear to be more complex. Despite enhancing lipolysis in cultured 3T3-L1 adipocytes, trans-10 18:1 did not reduce body fat gain when fed to mice.

CC 18-5 (Animal Nutrition)

IT 56-81-5, Glycerol, biological studies 1839-11-8, Conjugated linoleic acid 9004-02-8, Lipoprotein lipase

RL: BSU (Biological study, unclassified); BIOL (Biological study) (conjugated linoleic acid effect on lipoprotein lipase and glycerol release from adipocytes)

IT 1839-11-8, Conjugated linoleic acid

RL: BSU (Biological study, unclassified); BIOL (Biological study) (conjugated linoleic acid effect on lipoprotein lipase and glycerol release from adipocytes)

RN 1839-11-8 HCAPLUS  
 CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)

$\text{HO}_2\text{C}-(\text{CH}_2)_7-\text{CH}=\text{CH}-\text{CH}=\text{CH}-(\text{CH}_2)_5-\text{Me}$

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 5 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 5

ACCESSION NUMBER: 2003:47895 HCAPLUS

DOCUMENT NUMBER: 138:254351

TITLE: Dietary conjugated linoleic acid decreased cachexia, macrophage tumor necrosis factor- $\alpha$  production, and modifies splenocyte cytokines production

AUTHOR(S): Yang, Mingder; Cook, Mark E.

CORPORATE SOURCE: Department of Animal Sciences, University of Wisconsin, Madison, WI, 53706, USA

SOURCE: Experimental Biology and Medicine (Maywood, NJ, United States) (2003), 228(1), 51-58

CODEN: EBMME; ISSN: 1535-3702

PUBLISHER: Society for Experimental Biology and Medicine

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The effect of conjugated linoleic acid (CLA) on macrophage functions were studied in vitro, in vivo, and ex vivo. In RAW macrophage cell line, CLA (mixed isomers) was shown to inhibit lipopolysaccharide (LPS)-stimulated tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ) production. Two CLA isomers, c9,t11 and t10,c12, were tested on RAW cells and it was found that the c9,t11 was the isomer responsible for the inhibition of LPS-induced TNF- $\alpha$  production. BALB/c mice were used to determine the effect of dietary CLA on body weight wasting and feed intake after LPS injection. CLA was protective against LPS-induced body weight wasting and anorexia. Plasma TNF- $\alpha$  levels after LPS injection were lower in the CLA group compared with the corn oil-fed control group 2 h post-LPS injection. In a sep. experiment, 30 mice were fed a CLA-supplemented diet or a corn oil-supplemented diet for 6 wk and peritoneal resident macrophages were obtained for measuring TNF- $\alpha$  and nitric oxide production after in vitro exposure to interferon- $\gamma$  (IFN- $\gamma$ ) and/or LPS. TNF- $\alpha$  production was not found to be different in peritoneal macrophages from mice fed the dietary treatments, but less nitric oxide was produced in macrophages from CLA-fed mice upon stimulation when compared with macrophages from control-fed mice. Splenocytes were also collected from the mice fed the dietary treatments and stimulated to produce cytokines in culture. Supernatant was used to run cytokine enzyme-linked immunoabsorbant assays. Interleukin-4 (IL-4) was decreased in CLA-fed mice when splenocytes were stimulated with Con A (Con A) for 44 h; however, IL-2 and the IL-2-to-IL-4 ratio were elevated.

CC 18-5 (Animal Nutrition)

IT 1839-11-8, Conjugated linoleic acid

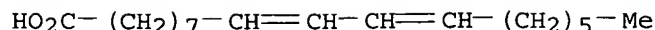
RL: BSU (Biological study, unclassified); BIOL (Biological study) (conjugated linoleic acid effect on cachexia, macrophage tumor necrosis factor-alpha and splenocyte cytokine production)

IT 1839-11-8, Conjugated linoleic acid

RL: BSU (Biological study, unclassified); BIOL (Biological study) (conjugated linoleic acid effect on cachexia, macrophage tumor necrosis factor-alpha and splenocyte cytokine production)

RN 1839-11-8 HCAPLUS

CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 6 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 7

ACCESSION NUMBER: 2002:283508 HCAPLUS

DOCUMENT NUMBER: 137:32725

TITLE: Decreased antigen-induced eicosanoid release in conjugated linoleic acid-fed guinea pigs

AUTHOR(S): Whigham, Leah D.; Higbee, Alan; Bjorling, Dale E.; Park, Yeonhwa; Pariza, Michael W.; **Cook, Mark E.**

CORPORATE SOURCE: Department of Nutritional Sciences, College of Agriculture and Life Sciences, University of Wisconsin-Madison, Madison, WI, 53706, USA

SOURCE: American Journal of Physiology (2002), 282(4, Pt. 2), R1104-R1112

CODEN: AJPHAP; ISSN: 0002-9513

PUBLISHER: American Physiological Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB This study investigated the capacity of conjugated linoleic acids (CLA) to reduce ex vivo antigen-induced release of eicosanoids in a type I hypersensitivity model. Guinea pigs were fed a diet containing 0.25% safflower oil (control) or 0.25% CLA [43% trans (t)10, cis (c)12; 41% c9, t11/t9, c11 18:2] for 2 wk before and during sensitization to ovalbumin (OVA). Lungs, tracheas, and bladders were incubated in physiologic saline solution (PSS) for 1 h (basal mediator release) and challenged with OVA (0.01 g/l PSS) for 1 h (mediator release in response to antigen). Eicosanoids were quantified by HPLC/tandem mass spectrometry or enzyme immunoassay. CLA feeding resulted in no change in basal release but decreased eicosanoid release from sensitized tissues in response to antigen challenge in the following manner: thromboxane B2, 6-keto-prostaglandin (PG)F1 $\alpha$ , PGF2 $\alpha$ , PGD2, PGE2 by 57-75% in lung, 45-65% in trachea, and 38-60% in bladder; and leukotriene C4/D4/E4 by 87, 90, and 50% in lung, trachea, and bladder, resp. These data indicate that feeding CLA reduces lipid-derived inflammatory mediators produced by this type I hypersensitivity model.

CC 18-5 (Animal Nutrition)

IT 60-33-3, Linoleic acid, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study) (dietary linoleic acid effect on antigen-induced release of eicosanoids in a type-I hypersensitivity model)

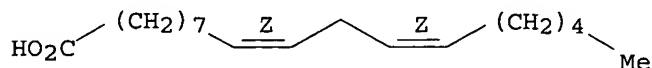
IT 60-33-3, Linoleic acid, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study) (dietary linoleic acid effect on antigen-induced release of eicosanoids in a type-I hypersensitivity model)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 7 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 8  
 ACCESSION NUMBER: 2001:187227 HCAPLUS  
 DOCUMENT NUMBER: 134:295133  
 TITLE: Olive oil prevents the adverse effects of dietary conjugated linoleic acid on chick hatchability and egg quality  
 AUTHOR(S): Aydin, Rahim; Pariza, Michael W.; Cook, Mark E.  
 CORPORATE SOURCE: Animal Sciences Department, University of Wisconsin-Madison, Madison, WI, 53706, USA  
 SOURCE: Journal of Nutrition (2001), 131(3), 800-806  
 CODEN: JONUAI; ISSN: 0022-3166  
 PUBLISHER: American Society for Nutritional Sciences  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Dietary conjugated linoleic acid (CLA) decreases yolk 18:1(n-9), induces chick embryonic mortality and alters egg quality. A study was conducted to determine whether olive oil would prevent these adverse effects of CLA. Hens (15 per treatment) were fed diets containing 0.5 g corn oil/100 g (CO), 0.5 g CLA/100 g (CLA), 0.5 g corn oil plus 10 g olive oil/100 g (CO + OO) or 0.5 g CLA plus 10 g olive oil/100 g (CLA + OO). After 74 d of feeding, hens were placed on CO for 10 d. Hens were artificially inseminated weekly. For hatchability studies, fertile eggs were collected daily, stored at 15°C for 24 h and then incubated. After 6 d of feeding, embryonic mortality rates were 15, 100, 8 and 16% in the CO, CLA, CO + OO and CLA + OO groups, resp. When CLA-fed hens were fed the CO diet, hatchability improved to that of the CO group within 7 d. For fatty acid anal., three eggs were obtained at the 7 d of feeding. Relative CLA levels of yolk from CO-, CLA-, CO + OO- and CLA + OO-fed hens were  $0.11 \pm 0.01$ ,  $1.91 \pm 0.16$ ,  $0.08 \pm 0.04$  and  $0.69 \pm 0.07$  g/100 g fatty acids, resp. The ratios of 16:0/16:1(n-7) and 18:0/18:1(n-9) of yolk from CLA-fed hens were .apprx.1- and .apprx.1.5-fold greater, resp., compared with those fed CO. OO prevented CLA-induced increases in 16:0 and 18:0 and the decrease in 18:1(n-9) in yolk. Fertile eggs were stored at 4°C for 2 or 10 wk and analyzed for pH or mineral levels. Dietary CLA caused abnormal pH changes of albumen and yolk when eggs were stored at 4°C. The pH of yolk and albumen from CO-fed hens after 10 wk of storage was  $6.12 \pm 0.12$  and  $9.06 \pm 0.03$ , resp., vs.  $7.89 \pm 0.25$  and  $8.32 \pm 0.16$ , resp., in eggs from CLA-fed hens. OO prevented CLA-induced abnormal changes in the pH of albumen and yolks. Eggs from CLA-fed hens had greater iron, calcium and zinc concns. and lower magnesium, sodium and chloride concns. in albumen relative to those from hens fed CO. OO prevented CLA-induced mineral exchange between yolk and albumen, presumably by reducing the yolk saturated fatty acids, which are believed to disrupt the vitelline membrane during cold storage. This study suggests that the adverse effects of CLA may be due to the increased level of saturated fatty acids. However, because the addition of olive oil also lowered egg CLA content, the direct role of egg CLA on egg hatchability and quality cannot be ruled out.

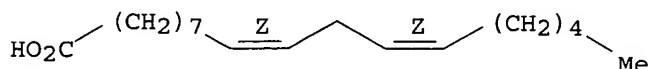
CC 18-5 (Animal Nutrition)  
 IT 60-33-3, Linoleic acid, biological studies  
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
 (olive oil prevents the adverse effects of dietary conjugated linoleic acid on chick hatchability and egg quality)  
 IT 60-33-3, Linoleic acid, biological studies

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(olive oil prevents the adverse effects of dietary conjugated linoleic acid on chick hatchability and egg quality)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 8 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 9

ACCESSION NUMBER: 2001:511285 HCAPLUS

DOCUMENT NUMBER: 135:287975

TITLE: The biologically active isomers of conjugated linoleic acid

AUTHOR(S): Pariza, Michael W.; Park, Yeonhwa; Cook, Mark E.

CORPORATE SOURCE: Department of Food Microbiology and Toxicology, Food Research Institute, University of Wisconsin-Madison, Madison, WI, 53706, USA

SOURCE: Progress in Lipid Research (2001), 40(4), 283-298  
CODEN: PLIRDW; ISSN: 0163-7827

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 86 refs. is given. Numerous physiol. effects are attributed to conjugated linoleic acid (CLA). The purpose of this presentation is to consider these effects with respect to the cis-9,trans-11 and trans-10,cis-12 CLA isomers. We review previously published data and present new findings that relate to underlying biochem. mechanisms of action. Both isomers are natural products. The cis-9,trans-11 isomer is the principal dietary form of CLA, but the concns. of this isomer and the trans-10,cis-12 isomer in dairy products or beef vary depending on the diet fed to cows or steers, resp. The trans-10,cis-12 CLA isomer exerts specific effects on adipocytes, in particular reducing the uptake of lipid by inhibiting the activities of lipoprotein lipase and stearyl-CoA desaturase. The trans-10,cis-12 CLA isomer also affects lipid metabolism in cultured Hep-G2 human liver cells, whereas both the cis-9,trans-11 and trans-10,cis-12 CLA isomers appear to be active in inhibiting carcinogenesis in animal models. We present new findings indicating that the cis-9,trans-11 CLA isomer enhances growth and probably feed efficiency in young rodents. Accordingly, the effects of CLA on body composition (induced by trans-10,cis-12 CLA) and growth/feed efficiency (induced by cis-9,trans-11 CLA) appear to be due to sep. biochem. mechanisms. We also show that a 19-carbon CLA cognate (conjugated nonadecadienoic acid, CNA) inhibits lipoprotein lipase activity as effectively as CLA in cultured 3T3-L1 adipocytes. Presumably, CNA is metabolized differently than the 18-carbon CLA isomers, so this finding indicates direct activity of the administered compound as opposed to acting via a metabolite.

CC 18-0 (Animal Nutrition)

IT 2420-56-6, trans-10,cis-12-Octadecadienoic acid 2540-56-9

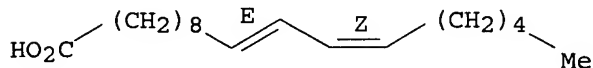
, cis-9,trans-11-Octadecadienoic acid 121250-47-3, Conjugated linoleic acid

RL: BAC (Biological activity or effector, except adverse); BSU (Biological



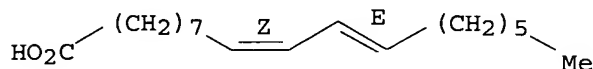
study, unclassified); BIOL (Biological study)  
 (biol. active isomers of conjugated linoleic acid)  
 IT 2420-56-6, trans-10,cis-12-Octadecadienoic acid 2540-56-9  
 , cis-9,trans-11-Octadecadienoic acid  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
 study, unclassified); BIOL (Biological study)  
 (biol. active isomers of conjugated linoleic acid)  
 RN 2420-56-6 HCAPLUS  
 CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 2540-56-9 HCAPLUS  
 CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



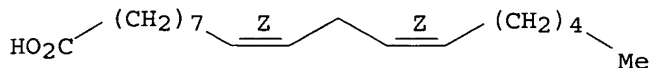
REFERENCE COUNT: 86 THERE ARE 86 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 9 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 10  
 ACCESSION NUMBER: 2001:206741 HCAPLUS  
 DOCUMENT NUMBER: 134:295138  
 TITLE: Dietary supplementation with conjugated linoleic acid  
 does not alter the resistance of mice to Listeria  
 monocytogenes infection  
 AUTHOR(S): Turnock, Lori; Cook, Mark; Steinberg,  
 Howard; Czuprynski, Charles  
 CORPORATE SOURCE: Department of Pathobiological Sciences, University of  
 Wisconsin-Madison, Madison, WI, 53706, USA  
 SOURCE: Lipids (2001), 36(2), 135-143  
 CODEN: LPDSAP; ISSN: 0024-4201  
 PUBLISHER: AOCS Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Conjugated linoleic acid (CLA) has been used exptl. as a dietary  
 supplement to increase lean body weight and to modulate inflammation in a  
 variety of animal species. In addition, human use of dietary CLA as a  
 supplement to regulate body fat has received both scientific and public  
 attention. No reports have been published regarding the effects of  
 dietary CLA on antimicrobial resistance. In this study, we provide  
 evidence that feeding CLA for up to 4 wk does not alter host defense  
 against Listeria monocytogenes in mice. These findings suggest that the  
 anti-inflammatory effects of CLA do not impair cellular immunity to this  
 intracellular pathogen.  
 CC 18-5 (Animal Nutrition)  
 IT 60-33-3, Linoleic acid, biological studies  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
 study, unclassified); BIOL (Biological study)  
 (dietary supplementation with conjugated linoleic acid effect on

resistance of mice to *Listeria monocytogenes* infection)  
 IT 60-33-3, Linoleic acid, biological studies  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (dietary supplementation with conjugated linoleic acid effect on resistance of mice to *Listeria monocytogenes* infection)  
 RN 60-33-3 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



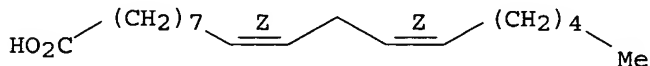
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 10 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 11  
 ACCESSION NUMBER: 2001:13239 HCAPLUS  
 DOCUMENT NUMBER: 134:207038  
 TITLE: Conjugated linoleic acid: implications for human health  
 AUTHOR(S): Whigham, Leah D.; Cook, Mark E.; Atkinson, Richard L.  
 CORPORATE SOURCE: Department of Nutritional Sciences, University of Wisconsin, Madison, WI, USA  
 SOURCE: Pharmacological Research (2000), 42(6), 503-510  
 CODEN: PHMREP; ISSN: 1043-6618  
 PUBLISHER: Academic Press  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: English

AB A review with 77 refs. Conjugated linoleic acid (CLA) is being sold as a panacea that has the capability of reducing or eliminating cancer, preventing heart disease, improving immune function, and altering body composition to treat obesity or build lean body mass. Unfortunately, there has been very little published human research on CLA. This review will examine the literature on CLA and discuss the animal research on which the above claims are made. The limited human studies will be presented with an evaluation of the potential uses of CLA for human health and disease.  
 (c) 2000 The Italian Pharmacological Society.

CC 18-0 (Animal Nutrition)  
 IT 60-33-3, Linoleic acid, biological studies  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (dietary conjugated linoleic acid in relation to human health)  
 IT 60-33-3, Linoleic acid, biological studies  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (dietary conjugated linoleic acid in relation to human health)  
 RN 60-33-3 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 77 THERE ARE 77 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 11 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 13  
ACCESSION NUMBER: 2000:490675 HCAPLUS  
DOCUMENT NUMBER: 133:263068  
TITLE: Inhibition of hepatic stearyl-CoA desaturase activity  
by trans-10,cis-12 conjugated linoleic acid and its  
derivatives  
AUTHOR(S): Park, Y.; Storkson, J. M.; Ntambi, J. M.; Cook,  
M. E.; Sih, C. J.; Pariza, M. W.  
CORPORATE SOURCE: Department of Food Microbiology and Toxicology, Food  
Research Institute, University of Wisconsin-Madison,  
Madison, WI, USA  
SOURCE: Biochimica et Biophysica Acta, Molecular and Cell  
Biology of Lipids (2000), 1486(2-3), 285-292  
CODEN: BBMLFG; ISSN: 1388-1981  
PUBLISHER: Elsevier B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Conjugated linoleic acid (CLA) has been reported to decrease stearyl-CoA desaturase (SCD) activity by decreasing mRNA expression. This investigation was designed to determine whether structurally related compds. of CLA have a direct inhibitory effect on SCD activity. Trans-10,cis-12 CLA had strong inhibitory activity on SCD while cis-9,trans-11, and trans-9,trans-11 isomers had no effect. Trans-10 octadecenoate was not inhibitory, whereas cis-12 octadecenoate was inhibitory, but not as effective as trans-10,cis-12 CLA. Of the oxygenated derivs., 9-peroxy-cis/trans-10, trans-12 octadecadienoate was a more effective inhibitor than trans-10,cis-12 CLA, whereas 9-hydroxy-trans-10, cis-12 octadecadienoate was less effective. Interestingly, cis-11 octadecadienoate and cis-12 octadecen-10-ynoate were slightly inhibitory. However, trans-9 and trans-11 octadecenoates, and trans-9,cis-12 octadecadienoate were all inactive under test condition, as were linoleate, oleate, and arachidonate. Derivs. of CLA acid modified to alc., amide or chloride were all inactive. A cis-12 double bond appears to be a key structural feature for inhibiting SCD activity, especially when coupled with a trans-10 double, whereas a cis-11 double bond is less effective.

CC 7-3 (Enzymes)

IT 506-17-2, cis-11-Octadecenoic acid 2420-56-6,  
10-trans-12-cis-Linoleic acid 5502-91-0 9014-34-0, Stearyl-CoA  
desaturase 13126-37-9, cis-12-Octadecenoic acid 98524-19-7  
298216-31-6

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(inhibition of hepatic stearyl-CoA desaturase activity by conjugated  
linoleic acid and its derivs.)

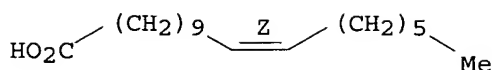
IT 506-17-2, cis-11-Octadecenoic acid 2420-56-6,  
10-trans-12-cis-Linoleic acid

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(inhibition of hepatic stearyl-CoA desaturase activity by conjugated  
linoleic acid and its derivs.)

RN 506-17-2 HCAPLUS

CN 11-Octadecenoic acid, (11Z)- (9CI) (CA INDEX NAME)

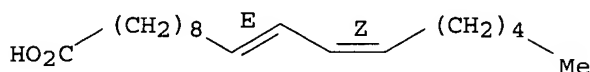
Double bond geometry as shown.



RN 2420-56-6 HCAPLUS

CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 12 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 14

ACCESSION NUMBER: 2000:446971 HCAPLUS

DOCUMENT NUMBER: 133:163523

TITLE: Mechanisms of action of conjugated linoleic acid: evidence and speculation

AUTHOR(S): Pariza, Michael W.; Park, Yeonhwa; **Cook, Mark E.**

CORPORATE SOURCE: Food Research Institute, Department of Food Microbiology and Toxicology, University of Wisconsin-Madison, Madison, WI, 53706, USA

SOURCE: Proceedings of the Society for Experimental Biology and Medicine (2000), 223(1), 8-13  
CODEN: PSEBAA; ISSN: 0037-9727

PUBLISHER: Blackwell Science, Inc.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 58 refs. Conjugated linoleic acid (CLA) inhibits carcinogenesis and atherosclerosis, enhances immunol. functions, protects against catabolic effects of immune stimulation, affects body composition changes (decreases body fat gain and enhances lean body mass gain), and stimulates growth in young rats. Possible biochem. mechanisms of these physiol. effects are presented. The importance in these effects of the two main CLA isomers (9-cis,11-trans-CLA and 10-trans,12-cis-CLA), both individually and combined, that have biol. activity and exert their effects via different biochem. mechanisms is discussed.

CC 18-0 (Animal Nutrition)

IT 2420-56-6, 10,12-Octadecadienoic acid, (10E,12Z)-

2540-56-9, 9-cis,11-trans-Linoleic acid 121250-47-3, Conjugated linoleic acid

RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses) (dietary conjugated linoleic acid and nutritional biochem. mechanisms of its actions)

IT 2420-56-6, 10,12-Octadecadienoic acid, (10E,12Z)-

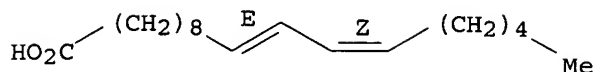
2540-56-9, 9-cis,11-trans-Linoleic acid

RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses) (dietary conjugated linoleic acid and nutritional biochem. mechanisms of its actions)

RN 2420-56-6 HCAPLUS

CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

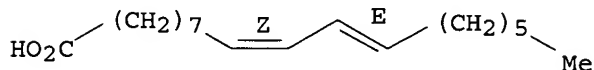
Double bond geometry as shown.



RN 2540-56-9 HCAPLUS

CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 13 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 15

ACCESSION NUMBER: 1999:243647 HCAPLUS

DOCUMENT NUMBER: 131:31405

TITLE: Changes in body composition in mice during feeding and withdrawal of conjugated linoleic acid

AUTHOR(S): Park, Yeonhwa; Albright, Karen J.; Storkson, Jayne M.; Liu, Wei; Cook, Mark E.; Pariza, Michael W.

CORPORATE SOURCE: Food Research Institute, Department of Food Microbiology and Toxicology, University of Wisconsin-Madison, Madison, WI, 53706, USA

SOURCE: Lipids (1999), 34(3), 243-248  
CODEN: LPDSAP; ISSN: 0024-4201

PUBLISHER: AOCS Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Two expts. were conducted. In Experiment 1, 8-wk-old mice were fed control diet or diet supplemented with 0.5% conjugated linoleic acid (CLA) to study the effect of CLA on body composition (CLA: 40.8-41.1% c-9,t-11 isomer, 43.5-44.9% t-10,c-12 isomer). The data for CLA-fed mice vs. controls described parallel but significantly distinct responses for both absolute and relative changes in body fat mass (reduced in CLA-fed mice) and for relative changes in whole body protein and whole body water (both of which were increased in CLA-fed mice). In the CLA-fed mice, the effect on whole body protein appeared to precede the reduction in body fat mass. In

Experiment 2, weanling mice were fed control diet or diet supplemented with 0.5% CLA for 4 wk (test group), at which time all mice were fed control diet devoid of added CLA. The test group exhibited significantly reduced body fat and significantly enhanced whole body water relative to controls at the time of diet change. Time trends for changes in relative body composition were described by parallel lines where the test group exhibited significantly less body fat but significantly more whole body protein, whole body water, and whole body ash than controls. Tissue CLA levels declined following the withdrawal of CLA from the diet. In skeletal muscle of mice fed CLA-supplemented diet, the t-10,c-12 isomer was cleared significantly faster than the c-9,t-11 CLA isomer.

CC 18-5 (Animal Nutrition)

IT 60-33-3, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies

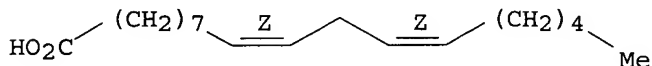
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(changes in body composition during feeding and withdrawal of conjugated linoleic acid)

IT 60-33-3, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (changes in body composition during feeding and withdrawal of conjugated linoleic acid)

RN 60-33-3 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 14 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 16  
 ACCESSION NUMBER: 2000:11889 HCAPLUS  
 DOCUMENT NUMBER: 132:165472  
 TITLE: Conjugated linoleic acid and the control of cancer and obesity  
 AUTHOR(S): Pariza, Michael W.; Park, Yeonhwa; Cook, Mark E.  
 CORPORATE SOURCE: Food Research Institute, Department of Food Microbiology and Toxicology, University of Wisconsin-Madison, Madison, WI, 53706-1187, USA  
 SOURCE: Toxicological Sciences (1999), 52(2, Suppl.), 107-110  
 CODEN: TOSCF2; ISSN: 1096-6080  
 PUBLISHER: Oxford University Press  
 DOCUMENT TYPE: Journal; General Review  
 LANGUAGE: English

AB A review with 38 refs. The effects of conjugated linoleic acid (CLA) in animals are discussed. In most CLA preps. investigated to date for their biol. activity, two CLA isomers are present in about equal concns.: 9-cis,11-trans-CLA and 10-trans,12-cis-CLA. The occurrence of these 2 isomers in foods and their production by rumen microorganisms are discussed. Potential mechanisms of CLA action on cancer and body composition are reviewed, including recent evidence that body composition changes are produced by the 10-trans,12-cis-CLA isomer. CLA may also modulate cellular responses to tumor necrosis factor- $\alpha$ . The mechanistic implications of this finding are considered.

CC 18-0 (Animal Nutrition)  
 Section cross-reference(s): 14

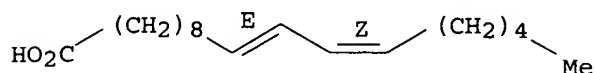
IT 2420-56-6, 10,12-Octadecadienoic acid (10E,12Z)- 2540-56-9  
 , 9,11-Octadecadienoic acid (9Z,11E)-  
 RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (dietary conjugated linoleic acid isomers and control of cancer and obesity)

IT 2420-56-6, 10,12-Octadecadienoic acid (10E,12Z)- 2540-56-9  
 , 9,11-Octadecadienoic acid (9Z,11E)-  
 RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (dietary conjugated linoleic acid isomers and control of cancer and obesity)

RN 2420-56-6 HCAPLUS

CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

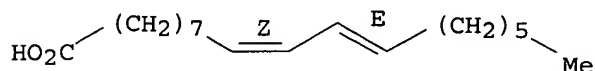
Double bond geometry as shown.



RN 2540-56-9 HCAPLUS

CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 15 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 18

ACCESSION NUMBER: 1995:266229 HCAPLUS

DOCUMENT NUMBER: 122:55004

TITLE: Conjugated linoleic acid is a growth factor for rats as shown by enhanced weight gain and improved feed efficiency

AUTHOR(S): Chin, Sou F.; Stockson, Jayne M.; Albright, Karen J.; Cook, Mark E.; Pariza Michael W.

CORPORATE SOURCE: Dep. Poultry Science, University Wisconsin-Madison, Madison, WI, 53706, USA

SOURCE: Journal of Nutrition (1994), 124(12), 2344-9  
CODEN: JONUAI; ISSN: 0022-3166

PUBLISHER: American Institute of Nutrition

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We studied the effect of conjugated linoleic acid (CLA) on rat development and growth. Primigravid female Fischer rats were fed control or CLA-supplemented (0.25% or 0.5% CLA) diets during gestation and/or lactation. Conjugated linoleic acid was incorporated into milk fat and tissue lipids proportional to the level of CLA fed and the duration of CLA feeding. Conjugated linoleic acid was incorporated into fetal and neonatal tissues; it did not affect litter size nor induce apparent abnormalities. To the contrary, feeding CLA to the dams during gestation and lactation improved the postnatal body weight gain of pups, measured on d 10 of lactation. Pups that continued to received the CLA-supplemented die after weaning had significantly greater body weight gain and improved feed efficiency relative to control animals.

CC 18-5 (Animal Nutrition)

IT 60-33-3, Linoleic acid, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(conjugated linoleic acid is a growth factor as shown by enhanced weight gain and improved feed efficiency)

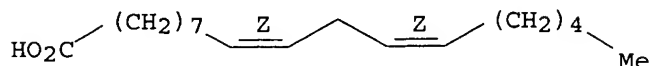
IT 60-33-3, Linoleic acid, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(conjugated linoleic acid is a growth factor as shown by enhanced weight gain and improved feed efficiency)

RN 60-33-3 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 16 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 19  
 ACCESSION NUMBER: 1994:190339 HCAPLUS  
 DOCUMENT NUMBER: 120:190339  
 TITLE: Feeding conjugated linoleic acid to animals partially overcomes catabolic responses due to endotoxin injection  
 AUTHOR(S): Miller, C. C.; Park, Y.; Pariza, M. W.; Cook, M. E.  
 CORPORATE SOURCE: Food Res. Inst., UW Madison, Madison, WI, 53706, USA  
 SOURCE: Biochemical and Biophysical Research Communications (1994), 198(3), 1107-12  
 CODEN: BBRC A9; ISSN: 0006-291X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The ability of conjugated linoleic acid to prevent endotoxin-induced growth suppression was examined. Mice fed a basal diet or a diet with 0.5% fish oil lost twice as much body weight after endotoxin injection than mice fed conjugated linoleic acid. By 72 h post injection, mice fed conjugated linoleic acid had body wts. similar to vehicle injected controls; however, body wts. of basal and fish oil fed mice injected with endotoxin were reduced. Conjugated linoleic acid prevented anorexia from endotoxin injection. Splenocyte blastogenesis was increased by conjugated linoleic acid.

CC 18-5 (Animal Nutrition)

Section cross-reference(s): 4

IT 60-33-3, Linoleic acid, biological studies

RL: BIOL (Biological study)  
 (growth suppression by endotoxin injection decrease by dietary conjugated)

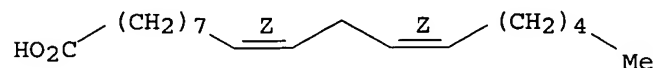
IT 60-33-3, Linoleic acid, biological studies

RL: BIOL (Biological study)  
 (growth suppression by endotoxin injection decrease by dietary conjugated)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 17 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 20  
 ACCESSION NUMBER: 1993:494402 HCAPLUS  
 DOCUMENT NUMBER: 119:94402  
 TITLE: Immune modulation by altered nutrient metabolism: nutritional control of immune-induced growth



depression

AUTHOR(S): **Cook, M. E.**; Miller, C. C.; Park, Y.; Pariza, M.

CORPORATE SOURCE: Food Res. Inst., Univ. Wisconsin, Madison, WI, 53706, USA

SOURCE: Poultry Science (1993), 72(7), 1301-5  
CODEN: POSCAL; ISSN: 0032-5791

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The ability of conjugated isomers of linoleic acid (CLA) to prevent reduced growth rate following endotoxin (lipopolysaccharide, LPS) injection was studied in two chick trials and one rat trial. Chicks (10 per treatment) were fed a corn and soybean meal-based diet with or without 0.5% CLA. At 21 days of age, chicks were weighed and injected i.p. with 1 mg/kg BW *Escherichia coli* LPS and sterile PBS. Body wts. were again determined 24 h later. Antibody responses to SRBC were also determined. Rats fed 0.5% stearic acid or CLA for 4 wk (seven per treatment) were also injected with LPS, and BW change over a 24-h postinjection period was determined. Antibody responses to BSA, phytohemagglutinin foot pad swelling, and phagocytosis of elicited peritoneal macrophages were also determined. The CLA had no adverse effects on any immune variables measured in the chicks and rats. The CLA enhanced the phytohemagglutinin response and macrophage phagocytosis in rats. Chicks fed CLA and injected with LPS continued to grow, whereas those not fed CLA either failed to grow or lost weight following LPS injection. Both control and CLA-fed rats lost weight over the 24-h period after LPS injection; however, the loss of weight in rats fed CLA was only half of the weight loss of the control rats. Thus, CLA is effective in preventing the catabolic effects of immune stimulation.

CC 18-5 (Animal Nutrition)  
Section cross-reference(s): 15

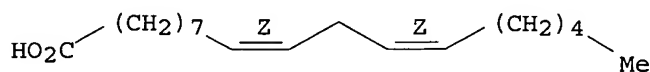
IT 60-33-3D, Linoleic acid, conjugated isomers  
RL: BIOL (Biological study)  
(immune-induced growth depression decrease by dietary)

IT 60-33-3D, Linoleic acid, conjugated isomers  
RL: BIOL (Biological study)  
(immune-induced growth depression decrease by dietary)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 18 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 21

ACCESSION NUMBER: 1992:647610 HCAPLUS

DOCUMENT NUMBER: 117:247610

TITLE: Purification of lipoxygenase and hydroperoxide dehydrase in flaxseeds: interaction between these enzymic activities

AUTHOR(S): Rabinovitch-Chable, Helene; **Cook-Moreau, Jeanne**; Breton, Jean Christian; Rigaud, Michel

CORPORATE SOURCE: URA CNRS 1485, Fac. Med., Limoges, 87025, Fr.

SOURCE: Biochemical and Biophysical Research Communications (1992), 188(2), 858-64  
CODEN: BBRCA9; ISSN: 0006-291X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A lipoxxygenase and a hydroperoxide dehydrase were purified from flaxseed acetone powder. The lipoxxygenase activity belongs to an iron-containing protein having a mol. weight of 130 kDa which, upon incubation with  $\alpha$ -linolenic acid, forms 13-hydroperoxy-9(Z),11(E),15(Z)-octadecatrienoic acid. The hydroperoxide dehydrase (a 55 kDa protein) metabolizes this hydroperoxide to an allene oxide which in turn is spontaneously hydrolyzed to  $\alpha$ - and  $\gamma$ -ketols. Relationships between these 2 enzymes were studied and results suggest an inhibition of the lipoxxygenase by hydroperoxide dehydrase.

CC 7-3 (Enzymes)

IT 60-33-3,  $\alpha$ -Linoleic acid, biological studies

RL: BIOL (Biological study)

(hydroperoxyoctadecatrienoate formation from, by lipoxxygenase of flaxseed)

IT 60-33-3,  $\alpha$ -Linoleic acid, biological studies

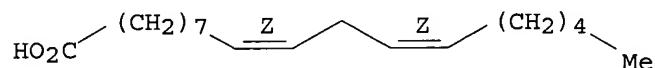
RL: BIOL (Biological study)

(hydroperoxyoctadecatrienoate formation from, by lipoxxygenase of flaxseed)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 19 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:611846 HCAPLUS

DOCUMENT NUMBER: 143:109789

TITLE: Method of treating type iii hypersensitive reaction-related diseases and conditions by using conjugated linoleic acid

INVENTOR(S): Cook, Mark E.; Butz, Dan E.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 5 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005154059	A1	20050714	US 2004-756719	20040113
WO 2005070410	A1	20050804	WO 2004-US39416	20041123

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-756719 A 20040113

AB A method for treating diseases and conditions caused by type III hypersensitive reactions in a human or non-human animal is disclosed. The method involves administering to the animal a conjugated linoleic acid (CLA) or a substance which can be converted to CLA in the animal in an amount effective to reduce inflammation in the animal.

IC ICM A61K031-202

INCL 514560000

CC 1-7 (Pharmacology)  
Section cross-reference(s): 63

IT 60-33-3, Linoleic acid, biological studies  
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(conjugated; method of treating type iii hypersensitive reaction-related diseases and conditions by using conjugated linoleic acid)

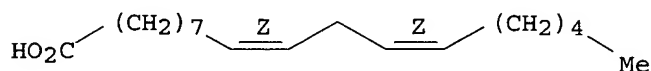
IT 872-23-1 2420-44-2 2420-56-6 2540-56-9  
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(method of treating type iii hypersensitive reaction-related diseases and conditions by using conjugated linoleic acid)

IT 60-33-3, Linoleic acid, biological studies  
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(conjugated; method of treating type iii hypersensitive reaction-related diseases and conditions by using conjugated linoleic acid)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

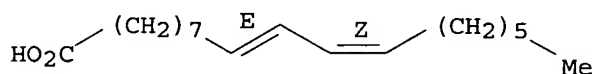


IT 872-23-1 2420-44-2 2420-56-6 2540-56-9  
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(method of treating type iii hypersensitive reaction-related diseases and conditions by using conjugated linoleic acid)

RN 872-23-1 HCAPLUS

CN 9,11-Octadecadienoic acid, (9E,11Z)- (9CI) (CA INDEX NAME)

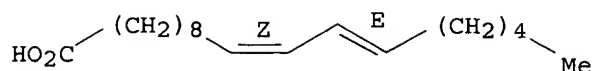
Double bond geometry as shown.



RN 2420-44-2 HCAPLUS

CN 10,12-Octadecadienoic acid, (10Z,12E)- (9CI) (CA INDEX NAME)

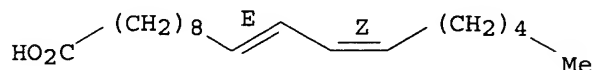
Double bond geometry as shown.



RN 2420-56-6 HCAPLUS

CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

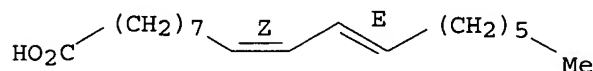
Double bond geometry as shown.



RN 2540-56-9 HCAPLUS

CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 20 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:748725 HCAPLUS

DOCUMENT NUMBER: 140:405959

TITLE: Conjugated linoleic acid enhances immune responses but protects against the collateral damage of immune events

AUTHOR(S): Cook, Mark E.; Butz, Dan; Li, Guangming; Pariza, Mike; Whigham, Leah; Yang, Mingder

CORPORATE SOURCE: Animal Sciences Department, Molecular and Environmental Toxicology, Food Microbiology and Toxicology, Department of Nutritional Sciences, University of Wisconsin, Madison, WI, 53706, USA

SOURCE: Advances in Conjugated Linoleic Acid Research (2003), Volume 2, 283-291. Editor(s): Sebedio, Jean-Louis; Christie, William W.; Adolf, Richard. AOCS Press: Champaign, Ill.

CODEN: 68IXA3

DOCUMENT TYPE: Conference; General Review

LANGUAGE: English

AB A review. Regulatory effects of dietary conjugated linoleic acid (CLA) in the inhibition of production of antigen-induced cyclooxygenase and lipoxygenase metabolites. The 10-trans,12-cis-CLA isomer appears to be the relevant CLA form. The biol. relevance of immunity-modulating activity of CLA and the pos. and neutral influences on infectious and inflammatory responses are also examined

CC 18-0 (Animal Nutrition)  
Section cross-reference(s): 15

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 21 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:63822 HCAPLUS

DOCUMENT NUMBER: 134:110459

TITLE: Selective inhibition of cyclooxygenase-2 with a conjugated linoleic acid, and method for reducing inflammation

INVENTOR(S): Cook, Mark E.; Whigham, Leah D.; Pariza, Michael W.

PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA

SOURCE: PCT Int. Appl., 21 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001005395	A1	20010125	WO 2000-US7824	20000324
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2379649	AA	20010125	CA 2000-2379649	20000324
EP 1196161	A1	20020417	EP 2000-916646	20000324
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.: US 1999-357268 A 19990720  
WO 2000-US7824 W 20000324

AB A method is disclosed for selectively inhibiting cyclooxygenase 2 in an animal having a cyclooxygenase 2 activity by delivering into the animal an amount of a conjugated linoleic acid effective to reduce cyclooxygenase 2 activity in the animal. Also disclosed is a method using a conjugated linoleic acid to reduce inflammation without causing gastric irritation.

IC ICM A61K031-231

ICS A61P029-00

CC 1-7 (Pharmacology)

Section cross-reference(s): 63

IT 872-23-1 872-23-1D, esters 2420-44-2

2420-44-2D, esters 2420-56-6 2420-56-6D,

esters 2540-56-9 2540-56-9D, esters 121250-47-3,

Conjugated linoleic acid

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugated linoleic acid for cyclooxygenase-2 inhibition, and method for reducing inflammation)

IT 872-23-1 872-23-1D, esters 2420-44-2

2420-44-2D, esters 2420-56-6 2420-56-6D,

esters 2540-56-9 2540-56-9D, esters

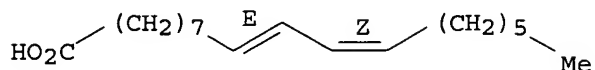
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugated linoleic acid for cyclooxygenase-2 inhibition, and method for reducing inflammation)

RN 872-23-1 HCAPLUS

CN 9,11-Octadecadienoic acid, (9E,11Z)- (9CI) (CA INDEX NAME)

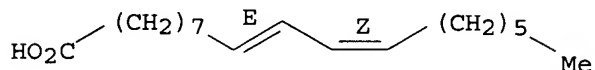
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RN 872-23-1 HCAPLUS

CN 9,11-Octadecadienoic acid, (9E,11Z)- (9CI) (CA INDEX NAME)

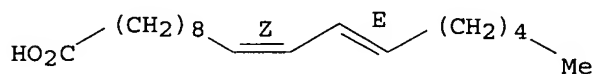
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RN 2420-44-2 HCAPLUS

CN 10,12-Octadecadienoic acid, (10Z,12E)- (9CI) (CA INDEX NAME)

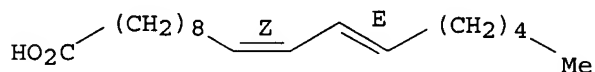
Double bond geometry as shown.



RN 2420-44-2 HCAPLUS

CN 10,12-Octadecadienoic acid, (10Z,12E)- (9CI) (CA INDEX NAME)

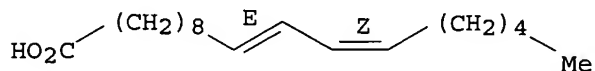
Double bond geometry as shown.



RN 2420-56-6 HCAPLUS

CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

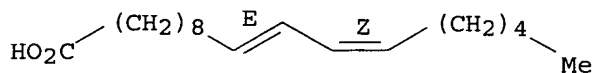
Double bond geometry as shown.



RN 2420-56-6 HCAPLUS

CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

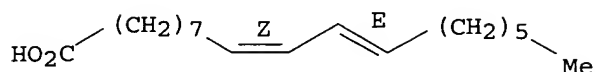
Double bond geometry as shown.



RN 2540-56-9 HCAPLUS

CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

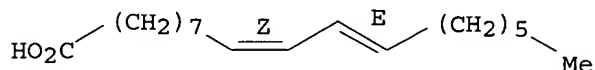
Double bond geometry as shown.



RN 2540-56-9 HCAPLUS

CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 22 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:78907 HCAPLUS

DOCUMENT NUMBER: 132:121952

TITLE: Method for selectively altering body fat level, feed efficiency, or weight gain

INVENTOR(S): Cook, Mark E.; Jerome, Daria; Pariza, Michael W.

PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA

SOURCE: U.S., 6 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6020378	A	20000201	US 1999-281382	19990330
CA 2365164	AA	20001005	CA 2000-2365164	20000104
WO 2000057720	A1	20001005	WO 2000-US97	20000104
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1164865	A1	20020102	EP 2000-903091	20000104
EP 1164865	B1	20040602		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
JP 2002539807	T2	20021126	JP 2000-607486	20000104
NZ 514520	A	20030725	NZ 2000-514520	20000104
AU 771921	B2	20040408	AU 2000-24887	20000104
AT 268122	E	20040615	AT 2000-903091	20000104
ES 2222173	T3	20050201	ES 2000-903091	20000104
PRIORITY APPLN. INFO.:			US 1999-281382	A 19990330
			WO 2000-US97	W 20000104

AB A method for treating an animal to reduce body fat while the animal exhibits improved feed efficiency and either continued weight gain or an increase in lean body mass, includes the steps of administering to the animal a combination of conjugated linoleic acid (CLA) isomers in a ratio selected to retain a desirable benefit attributable to one isomer while counteracting an undesirable effect of the same isomer. Highly enriched semi-pure 9-cis,11-trans-CLA and 10-trans,12-cis-CLA isomers were mixed with a standard mouse diet at the concentration of 0.4 % each; significant decrease

in body fats, i.e. from 14 % to 2.1 %, was observed

IC ICM A61K031-20

INCL 514560000

CC 18-7 (Animal Nutrition)

IT 2420-56-6, 10-trans,12-cis-Linoleic acid 2540-56-9

121250-47-3, Conjugated linoleic acid

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study);

USES (Uses)

(conjugated linoleic acids for selectively altering body fat level and feed efficiency and weight gain)

IT 2420-56-6, 10-trans,12-cis-Linoleic acid 2540-56-9

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study);

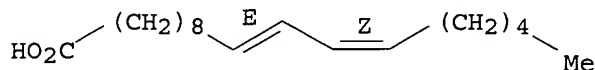
USES (Uses)

(conjugated linoleic acids for selectively altering body fat level and feed efficiency and weight gain)

RN 2420-56-6 HCAPLUS

CN 10,12-Octadecadienoic acid, (10E,12Z)- (9CI) (CA INDEX NAME)

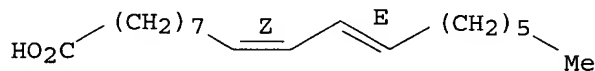
Double bond geometry as shown.



RN 2540-56-9 HCAPLUS

CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 23 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:672525 HCAPLUS

DOCUMENT NUMBER: 131:256791

TITLE: Eggs enriched with conjugated linoleic acid and method for making same

INVENTOR(S): Cook, Mark E.; Aydin, Rahim; Pariza, Michael W.

PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA

SOURCE: PCT Int. Appl., 19 pp.

CODEN: PIXXD2

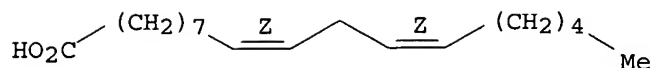
DOCUMENT TYPE: Patent



LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

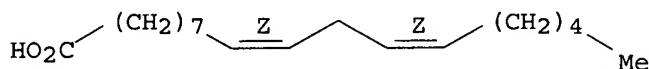
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9952382	A1	19991021	WO 1999-US7074	19990331
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6113973	A	20000905	US 1998-60588	19980415
CA 2328200	AA	19991021	CA 1999-2328200	19990331
AU 9933745	A1	19991101	AU 1999-33745	19990331
EP 1071340	A1	20010131	EP 1999-915161	19990331
EP 1071340	B1	20030129		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AT 231688	E	20030215	AT 1999-915161	19990331
ES 2192041	T3	20030916	ES 1999-915161	19990331
PRIORITY APPLN. INFO.:			US 1998-60588	A 19980415
			WO 1999-US7074	W 19990331
AB	An egg enriched with conjugated linoleic acid and having a normal appearance is produced by feeding poultry a diet enriched in conjugated linoleic acid (CLA) and a selected monounsaturated fatty acid. A poultry feed supplemented with conjugated linoleic acid and a selected monounsaturated fatty acid is also disclosed.			
IC	ICM A23L001-32 ICS A23K001-16; A23K001-18			
CC	18-5 (Animal Nutrition) Section cross-reference(s): 17			
IT	60-33-3, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses) (eggs enriched with conjugated linoleic acid and method for making same)			
IT	60-33-3D, Linoleic acid, derivs. 25447-95-4, Hexadecenoic acid 25448-03-7, Octadecatrienoic acid 26764-25-0, Octadecadienoic acid 26764-26-1, Octadecenoic acid RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses) (eggs enriched with conjugated linoleic acid and method for making same)			
IT	60-33-3, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); OCCU (Occurrence); PROC (Process); USES (Uses) (eggs enriched with conjugated linoleic acid and method for making same)			
RN	60-33-3 HCAPLUS			
CN	9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)			

Double bond geometry as shown.



IT 60-33-3D, Linoleic acid, derivs.  
 RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses) (eggs enriched with conjugated linoleic acid and method for making same)  
 RN 60-33-3 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 24 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1999:425460 HCAPLUS  
 DOCUMENT NUMBER: 131:58280  
 TITLE: Method of improving the growth or the efficiency of feed conversion of an animal and compositions for use therein  
 INVENTOR(S): Cook, Mark E.; Jerome, Daria L.  
 PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA  
 SOURCE: U.S., 5 pp., Cont.-in-part of U.S. 5,725,873.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5919451	A	19990706	US 1998-37690	19980310
US 5725873	A	19980310	US 1996-684785	19960722
EP 1468614	A1	20041020	EP 2004-17207	19970121

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

PRIORITY APPLN. INFO.: US 1996-684785 A2 19960722  
 EP 1997-903919 A3 19970121

AB A method of improving the efficiency of an animal to convert feed into desirable body tissue involves feeding the animal feed particles having an inner core of nutrients and an outer layer containing a conjugated fatty acid or an antibody that can protect the animal from contacting diseases that can adversely affect the animal's ability to grow or efficiently convert its feed into body tissue.

IC ICM A61K039-395  
 ICS A23J003-12; A23J001-06; A23K001-16

INCL 424130100

CC 18-6 (Animal Nutrition)

IT 60-33-3, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies  
 RL: AGR (Agricultural use); FFD (Food or feed use); BIOL (Biological study); USES (Uses)

(conjugated; method of improving the growth or the efficiency of feed conversion of an animal and antibody- and conjugated fatty acid-coated nutrient compns. for use therein)

IT 60-33-3, 9,12-Octadecadienoic acid (9Z,12Z)-, biological studies

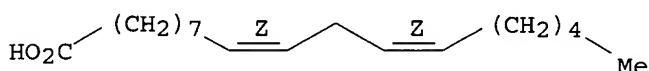
RL: AGR (Agricultural use); FFD (Food or feed use); BIOL (Biological study); USES (Uses)

(conjugated; method of improving the growth or the efficiency of feed conversion of an animal and antibody- and conjugated fatty acid-coated nutrient compns. for use therein)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 25 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:4221 HCAPLUS

DOCUMENT NUMBER: 132:347033

TITLE: Conjugated linoleic acid

AUTHOR(S): Cook, Mark E.

CORPORATE SOURCE: University of Wisconsin, Madison, WI, USA

SOURCE: Proceedings - Cornell Nutrition Conference for Feed Manufacturers (1999) 102-108  
CODEN: PNCFAB; ISSN: 0885-7687

PUBLISHER: Cornell University, New York State College of Agriculture and Life Sciences, Dep. of Animal Science and Division of Nutritional Sciences

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 22 refs. on conjugated linoleic acids (CLA) structure, digestion and immunostimulatory and other biol. effects of dietary CLA.

CC 18-0 (Animal Nutrition)  
Section cross-reference(s): 15

IT 60-33-3D, Linoleic acid, conjugated derivs.

RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (bio. effects of conjugated linoleic acid)

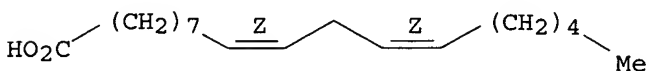
IT 60-33-3D, Linoleic acid, conjugated derivs.

RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (bio. effects of conjugated linoleic acid)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 26 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1998:739518 HCAPLUS  
 DOCUMENT NUMBER: 130:3383  
 TITLE: Method of increasing fat firmness and improving meat  
 quality in animals  
 INVENTOR(S): Cook, Mark E.; Daria, Jerome J.; Pariza,  
 Michael D.  
 PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA  
 SOURCE: PCT Int. Appl., 14 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9848641	A1	19981105	WO 1997-US19465	19971020
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5851572	A	19981222	US 1997-845535	19970425
AU 9750016	A1	19981124	AU 1997-50016	19971020
AU 729061	B2	20010125		
EP 977492	A1	20000209	EP 1997-912955	19971020
EP 977492	B1	20021211		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
NZ 337448	A	20010223	NZ 1997-337448	19971020
JP 2002501383	T2	20020115	JP 1998-546934	19971020
AT 229279	E	20021215	AT 1997-912955	19971020
ES 2184071	T3	20030401	ES 1997-912955	19971020
CA 2283488	C	20040914	CA 1997-2283488	19971020
CA 2283488	AA	19981105		

PRIORITY APPLN. INFO.: US 1997-845535 A 19970425  
 WO 1997-US19465 W 19971020

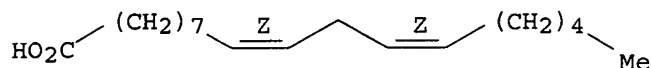
AB A method of treating meat animals to increase fat firmness and meat  
 quality indexes which increases meat processability consists of  
 administering to the meat animals a safe and effective amount of conjugated  
 linoleic acid (CLA).  
 IC ICM A23K001-16  
 ICS A23K001-18; A23L001-31  
 CC 18-5 (Animal Nutrition)  
 Section cross-reference(s): 17  
 IT 60-33-3D, Linoleic acid, salts and esters 1839-11-8,  
 Conjugated linoleic acid  
 RL: AGR (Agricultural use); BPR (Biological process); BSU (Biological  
 study, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)  
 (method of increasing fat firmness and improving meat quality in  
 animals)  
 IT 60-33-3D, Linoleic acid, salts and esters 1839-11-8,  
 Conjugated linoleic acid  
 RL: AGR (Agricultural use); BPR (Biological process); BSU (Biological  
 study, unclassified); BIOL (Biological study); PROC (Process); USES (Uses)

(method of increasing fat firmness and improving meat quality in animals)

RN 60-33-3 HCAPLUS

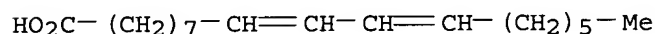
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 1839-11-8 HCAPLUS

CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 27 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:394196 HCAPLUS

DOCUMENT NUMBER: 129:58806

TITLE: Method for controlling body fat and/or body weight in animals and pharmaceutical compositions for use therein

INVENTOR(S): Cook, Mark E.; Park, Yeonhwa; Pariza, Michael W.

PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA

SOURCE: PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9824422	A2	19980611	WO 1997-US22192	19971203
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
US 5855917	A	19990105	US 1996-759496	19961204
CA 2269674	AA	19980611	CA 1997-2269674	19971203
AU 9855926	A1	19980629	AU 1998-55926	19971203
EP 942717	A2	19990922	EP 1997-952278	19971203
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
JP 2001505579	T2	20010424	JP 1998-525778	19971203
PRIORITY APPLN. INFO.:			US 1996-759496	A 19961204
			WO 1997-US22192	W 19971203

AB Methods of inhibiting lipoprotein lipase and controlling the body fat and the body weight of an animal employ an effective amount of at least one 20

carbon, conjugated, unsatd., fatty acid. Pharmaceutical compns. for use in the method are also disclosed. 11,14-Eicosadienoic acid was isomerized under alkaline conditions to obtain conjugated eicosadienoic acid, which was tested for inhibitory effects on the activity of lipoprotein lipase in 3T3-L1 adipocytes. A tablet was formulated containing 600 mg the conjugated eicosadienoic acid mixture

IC ICM A61K031-00  
ICS A61K031-20; C07C057-03  
CC 63-6 (Pharmaceuticals)  
IT 1839-11-8, 9,11-Octadecadienoic acid 22880-03-1,  
10,12-Octadecadienoic acid  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(C>20 unsatd. conjugated fatty acids for controlling body fat and weight)  
IT 1839-11-8, 9,11-Octadecadienoic acid 22880-03-1,  
10,12-Octadecadienoic acid  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(C>20 unsatd. conjugated fatty acids for controlling body fat and weight)  
RN 1839-11-8 HCAPLUS  
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)

$\text{HO}_2\text{C}-(\text{CH}_2)_7-\text{CH}=\text{CH}-\text{CH}=\text{CH}-(\text{CH}_2)_5-\text{Me}$

RN 22880-03-1 HCAPLUS  
CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)

$\text{HO}_2\text{C}-(\text{CH}_2)_8-\text{CH}=\text{CH}-\text{CH}=\text{CH}-(\text{CH}_2)_4-\text{Me}$

L169 ANSWER 28 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:323133 HCAPLUS  
DOCUMENT NUMBER: 129:19651  
TITLE: Use of conjugated octadecadienoic acids to enhance  
natural killer lymphocyte function  
INVENTOR(S): Cook, Mark E.; Kim, Sohee; Pariza, Michael  
W.; Devoney, Danielle  
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA  
SOURCE: PCT Int. Appl., 20 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9819675	A1	19980514	WO 1997-US20098	19971104
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2267109	AA	19980514	CA 1997-2267109	19971104
AU 9851041	A1	19980529	AU 1998-51041	19971104

US 5914346 A 19990622 US 1997-963740 19971104  
 EP 941088 A1 19990915 EP 1997-945605 19971104  
 EP 941088 B1 20030305

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, FI

JP 2001503430 T2 20010313 JP 1998-521719 19971104  
 AT 233557 E 20030315 AT 1997-945605 19971104

PRIORITY APPLN. INFO.: US 1996-30394P P 19961105  
 WO 1997-US20098 W 19971104

AB A method of enhancing the activity of natural killer lymphocytes and a method for increasing the basal level of natural killer activity in an animal include the step of administering orally or parenterally to said animal a safe amount of CLA (conjugated linoleic acid), said amount being effective to enhance the activity of killer lymphocytes or to enhance the basal activity of killer lymphocytes in the animal.

IC ICM A61K031-23

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 1

IT 60-33-3D, Linoleic acid, conjugated analogs 1839-11-8, 9,11-Octadecadienoic acid 22880-03-1, 10,12-Octadecadienoic acid  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugated octadecadienoic acids to enhance natural killer lymphocyte function)

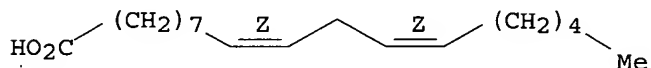
IT 60-33-3D, Linoleic acid, conjugated analogs 1839-11-8, 9,11-Octadecadienoic acid 22880-03-1, 10,12-Octadecadienoic acid  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugated octadecadienoic acids to enhance natural killer lymphocyte function)

RN 60-33-3 HCAPLUS

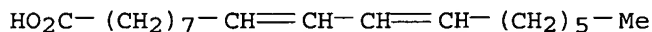
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



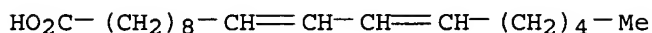
RN 1839-11-8 HCAPLUS

CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 22880-03-1 HCAPLUS

CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 29 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:112220 HCAPLUS  
 DOCUMENT NUMBER: 128:165941  
 TITLE: Conjugated linoleic acid to maintain or enhance bone mineral content  
 INVENTOR(S): Cook, Mark E.; Pariza, Michael W.  
 PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA  
 SOURCE: PCT Int. Appl., 13 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9805318	A1	19980212	WO 1997-US4536	19970318
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5804210	A	19980908	US 1996-693577	19960807
AU 9723384	A1	19980225	AU 1997-23384	19970318
EP 920309	A1	19990609	EP 1997-916125	19970318
EP 920309	B1	20020904		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2000515864	T2	20001128	JP 1998-507892	19970318
AT 223213	E	20020915	AT 1997-916125	19970318
ES 2179319	T3	20030116	ES 1997-916125	19970318
PRIORITY APPLN. INFO.:			US 1996-693577	A 19960807
			WO 1997-US4536	W 19970318

AB A method of treating an animal to maintain or enhance the mineral content of the bones of the animal consists of administering to the animal a safe and effective amount of conjugated linoleic acid (I). Day old broiler chicks were fed a diet containing 0.5% corn oil (control) or 0.5% I for 27 days. The chicks were then sacrificed and the bones were collected, dried, ether extracted and the ash content % was determined. The bones of the chicks fed the diet containing I had a higher ash and mineral content than the control chicks. A pharmaceutical tablet contained I 600, dibasic calcium phosphate 500 mg, cholecalciferol 3.33 µg, microcryst. cellulose, sodium starch glycolate, corn starch, hydrogenated vegetable oil wax, magnesium stearate and talc as excipients.

IC ICM A61K031-20

ICS A61K031-20; A61K033-06; A61K033-10

CC 14-11 (Mammalian Pathological Biochemistry)

Section cross-reference(s): 1, 63

IT 60-33-3D, Linoleic acid, triglycerides 471-34-1, Calcium carbonate, biological studies 822-17-3D, Sodium Linoleate, conjugates 1839-11-8, 9,11-Octadecadienoic acid 3414-89-9D, Potassium Linoleate, conjugates 7757-93-9, Dibasic calcium phosphate 19704-83-7D, Calcium Linoleate, conjugates 22880-03-1, 10,12-Octadecadienoic acid

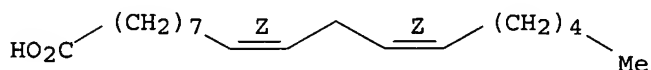
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugated linoleic acid to maintain or enhance bone mineral content)



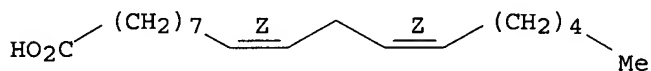
IT 60-33-3D, Linoleic acid, triglycerides 822-17-3D, Sodium Linoleate, conjugates 1839-11-8, 9,11-Octadecadienoic acid 3414-89-9D, Potassium Linoleate, conjugates 19704-83-7D, Calcium Linoleate, conjugates 22880-03-1, 10,12-Octadecadienoic acid  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugated linoleic acid to maintain or enhance bone mineral content)  
 RN 60-33-3 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

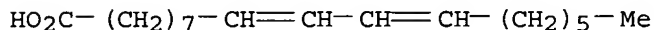


RN 822-17-3 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)-, sodium salt (9CI) (CA INDEX NAME)

Double bond geometry as shown.

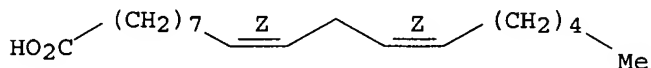


RN 1839-11-8 HCAPLUS  
 CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



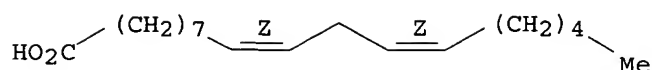
RN 3414-89-9 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)-, potassium salt (9CI) (CA INDEX NAME)

Double bond geometry as shown.



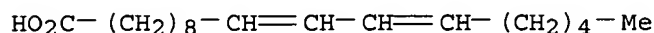
RN 19704-83-7 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)-, calcium salt (9CI) (CA INDEX NAME)

Double bond geometry as shown.



● 1/2 Ca

RN 22880-03-1 HCAPLUS  
CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 30 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1998:87584 HCAPLUS  
DOCUMENT NUMBER: 128:139997  
TITLE: Method of improving the growth or the efficiency of feed conversion of an animal and compositions for this use  
INVENTOR(S): Cook, Mark E.; Jerome, Daria L.  
PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA  
SOURCE: PCT Int. Appl., 12 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9803081	A1	19980129	WO 1997-US1034	19970121
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5725873	A	19980310	US 1996-684785	19960722
CA 2260835	AA	19980129	CA 1997-2260835	19970121
CA 2260835	C	20041123		
AU 9718358	A1	19980210	AU 1997-18358	19970121
EP 929232	A1	19990721	EP 1997-903919	19970121
EP 929232	B1	20050330		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2000515375	T2	20001121	JP 1998-506895	19970121
EP 1468614	A1	20041020	EP 2004-17207	19970121
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AT 291850	E	20050415	AT 1997-903919	19970121
PRIORITY APPLN. INFO.:			US 1996-684785	A 19960722

EP 1997-903919 A3 19970121

WO 1997-US1034 W 19970121

AB A method of improving the efficiency of an animal to convert feed into desirable body tissue involves feeding the animal feed particles having an inner core of nutrients and an outer layer of fat containing antibodies which can protect the animal from contracting diseases that can adversely affect the animal's ability to grow or efficiently convert its feed into body tissue.

IC ICM A23K001-00

ICS A61K009-16

CC 17-12 (Food and Feed Chemistry)

IT 60-33-3, Linoleic acid, biological studies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)

(method of improving the growth or the efficiency of feed conversion of an animal and compns. for this use)

IT 60-33-3, Linoleic acid, biological studies

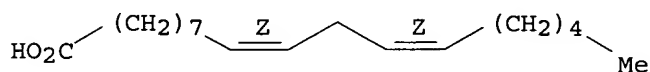
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)

(method of improving the growth or the efficiency of feed conversion of an animal and compns. for this use)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 31 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:631341 HCAPLUS

DOCUMENT NUMBER: 129:259788

TITLE: Method for maintaining an existing level of body fat

INVENTOR(S): Cook, Mark E.; Pariza, Michael W.

PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA

SOURCE: U.S., 4 pp., Cont.-in-part of U. S. 5,554,646.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 13

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5814663	A	19980929	US 1996-736562	19960828
US 5554646	A	19960910	US 1994-297472	19940829
US 5760082	A	19980602	US 1996-659845	19960607
US 5760082	C1	20010306		
CA 2251563	AA	19971211	CA 1997-2251563	19970319
CA 2251563	C	20050104		
WO 9746230	A1	19971211	WO 1997-US4538	19970319

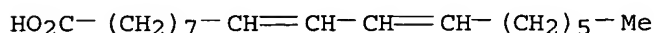
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ,

LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,  
PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN,  
YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB,  
GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN,  
ML, MR, NE, SN, TD, TG

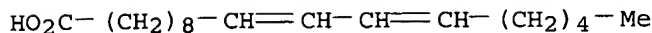
AU 9722187	A1	19980105	AU 1997-22187	19970319
AU 720553	B2	20000601		
EP 907360	A1	19990414	EP 1997-915179	19970319
EP 907360	B1	20041103		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001505530	T2	20010424	JP 1998-500552	19970319
EP 1438898	A2	20040721	EP 2004-9078	19970319
EP 1438898	A3	20050105		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AT 281160	E	20041115	AT 1997-915179	19970319
ES 2238718	T3	20050901	ES 1997-915179	19970319
PRIORITY APPLN. INFO.:				
			US 1994-297472	A2 19940829
			US 1996-659845	A2 19960607
			US 1992-875896	A2 19920429
			US 1993-7413	A2 19930122
			US 1996-736562	A 19960828
			EP 1997-915179	A3 19970319
			WO 1997-US4538	W 19970319

AB A method of maintaining an existing level of body fat or body weight in a human comprises administering a safe and effective amount of conjugated linoleic acid (CLA), e.g. 9,11- or 10,12-octadecadienoic acid, or an ester or salt thereof to maintain that level. CLA was prepared by chemical isomerization of linoleic acid, or prepared from safflower oil, by heating with KOH in ethylene glycol at 180° under N2 for 2 h, followed by cooling and neutralization. It may also be prepared from linoleic acid with linoleic acid isomerase from rumen bacteria, e.g. Butyrivibrio fibrisolvens. CLA may be administered as a parenteral liquid preparation, in dietetic margarine, or in food supplements.

IC ICM A61K031-20  
INCL 514560000  
CC 18-5 (Animal Nutrition)  
IT 1839-11-8, 9,11-Octadecadienoic acid 22880-03-1,  
10,12-Octadecadienoic acid 26764-25-0, Octadecadienoic acid  
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(method for maintaining an existing level of body fat)  
IT 1839-11-8, 9,11-Octadecadienoic acid 22880-03-1,  
10,12-Octadecadienoic acid  
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(method for maintaining an existing level of body fat)  
RN 1839-11-8 HCAPLUS  
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 22880-03-1 HCAPLUS  
CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



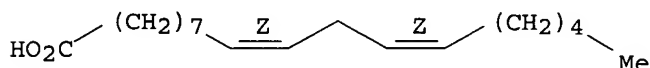
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 32 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1998:372618 HCAPLUS  
 DOCUMENT NUMBER: 129:45299  
 TITLE: Dietetic foods containing conjugated linoleic acids  
 INVENTOR(S): Cook, Mark E.; Pariza, Michael W.  
 PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA  
 SOURCE: U.S., 4 pp., Cont.-in-part of U. S. 5,554,646.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 13  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5760082	A	19980602	US 1996-659845	19960607
US 5760082	C1	20010306		
US 5554646	A	19960910	US 1994-297472	19940829
US 5814663	A	19980929	US 1996-736562	19960828
CA 2251563	AA	19971211	CA 1997-2251563	19970319
CA 2251563	C	20050104		
CA 2254716	AA	19971211	CA 1997-2254716	19970319
WO 9746118	A1	19971211	WO 1997-US4537	19970319
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
WO 9746230	A1	19971211	WO 1997-US4538	19970319
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
AU 9722187	A1	19980105	AU 1997-22187	19970319
AU 720553	B2	20000601		
AU 9723385	A1	19980105	AU 1997-23385	19970319
EP 907360	A1	19990414	EP 1997-915179	19970319
EP 907360	B1	20041103		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
EP 909132	A1	19990421	EP 1997-916126	19970319
EP 909132	B1	20040107		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI			
JP 2001505530	T2	20010424	JP 1998-500552	19970319
JP 2001505762	T2	20010508	JP 1998-500551	19970319
AT 257331	E	20040115	AT 1997-916126	19970319

EP 1438898 A2 20040721 EP 2004-9078 19970319  
 EP 1438898 A3 20050105  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, FI  
 AT 281160 E 20041115 AT 1997-915179 19970319  
 ES 2238718 T3 20050901 ES 1997-915179 19970319  
 PRIORITY APPLN. INFO.:  
 US 1994-297472 A2 19940829  
 US 1992-875896 A2 19920429  
 US 1993-7413 A2 19930122  
 US 1996-659845 A2 19960607  
 US 1996-736562 A 19960828  
 EP 1997-915179 A3 19970319  
 WO 1997-US4537 W 19970319  
 WO 1997-US4538 W 19970319  
 AB Disclosed is a dietetic food which contains a safe and effective amount of  
 conjugated linoleic acid (CLA). Linoleic acid and safflower oil were  
 introduced into a mixture of ethylene glycol and KOH to obtain CLA. A liquid  
 dietetic food for parenteral administration contained 0.5-10 mg of CLA per  
 g of the lipid. Also, a milk-free, soy protein-based baby formula  
 contained 0.03-0.5 g CLA per 100 cal serving.  
 IC ICM A61K031-20  
 ICS A61K031-22; A23D009-00  
 INCL 514560000  
 CC 63-6 (Pharmaceuticals)  
 Section cross-reference(s): 18  
 IT 60-33-3, 9,12-Octadecadienoic acid (9Z,12Z)-, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (dietetic foods containing conjugated linoleic acids)  
 IT 60-33-3, 9,12-Octadecadienoic acid (9Z,12Z)-, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (dietetic foods containing conjugated linoleic acids)  
 RN 60-33-3 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



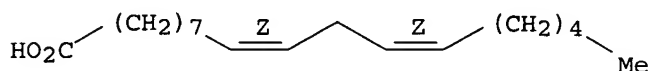
REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L169 ANSWER 33 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1997:812180 HCAPLUS  
 DOCUMENT NUMBER: 128:74781  
 TITLE: Method for maintaining an existing level of body fat  
 and/or body weight  
 INVENTOR(S): Cook, Mark E.; Pariza, Michael W.  
 PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA  
 SOURCE: PCT Int. Appl., 14 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 13  
 PATENT INFORMATION:

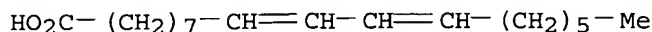
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9746230 A1 19971211 WO 1997-US4538 19970319  
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,  
DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ,  
LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,  
PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN,  
YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB,  
GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN,  
ML, MR, NE, SN, TD, TG  
US 5760082 A 19980602 US 1996-659845 19960607  
US 5760082 C1 20010306  
US 5814663 A 19980929 US 1996-736562 19960828  
AU 9722187 A1 19980105 AU 1997-22187 19970319  
AU 720553 B2 20000601  
EP 907360 A1 19990414 EP 1997-915179 19970319  
EP 907360 B1 20041103  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI  
JP 2001505530 T2 20010424 JP 1998-500552 19970319  
AT 281160 E 20041115 AT 1997-915179 19970319  
PRIORITY APPLN. INFO.:  
US 1996-659845 A 19960607  
US 1996-736562 A 19960828  
US 1994-297472 A2 19940829  
WO 1997-US4538 W 19970319  
AB A method of maintaining an existing level of body fat or body weight in a  
human, comprises administering a safe and effective amount of conjugated  
linoleic acid (CLA). A mixture containing linoleic acid, propylene glycol, and  
KOH was heated to 180° and the reaction mixture was treated with  
hexane. Hexane was removed to obtain a CLA, which contained  
9,11-octadecadienoic acid, 10,12-octadecadienoic acid, and/or active  
isomers thereof.  
IC ICM A61K031-20  
CC 18-5 (Animal Nutrition)  
IT 60-33-3DP, Linoleic acid, conjugates 1839-11-8DP,  
9,11-Octadecadienoic acid, isomers 1839-11-8P,  
9,11-Octadecadienoic acid 22880-03-1DP, 10,12-Octadecadienoic  
acid, isomers 22880-03-1P, 10,12-Octadecadienoic acid  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); FFD (Food or feed use); PNU (Preparation,  
unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(conjugated linoleic acid for maintaining existing level of body fat  
and/or body weight)  
IT 60-33-3DP, Linoleic acid, conjugates 1839-11-8DP,  
9,11-Octadecadienoic acid, isomers 1839-11-8P,  
9,11-Octadecadienoic acid 22880-03-1DP, 10,12-Octadecadienoic  
acid, isomers 22880-03-1P, 10,12-Octadecadienoic acid  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); FFD (Food or feed use); PNU (Preparation,  
unclassified); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(conjugated linoleic acid for maintaining existing level of body fat  
and/or body weight)  
RN 60-33-3 HCAPLUS  
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

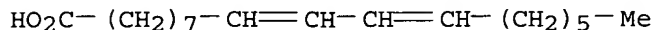
Double bond geometry as shown.



RN 1839-11-8 HCAPLUS  
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



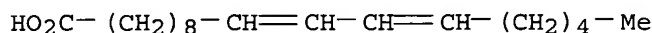
RN 1839-11-8 HCAPLUS  
CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 22880-03-1 HCAPLUS  
CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 22880-03-1 HCAPLUS  
CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



L169 ANSWER 34 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:684161 HCAPLUS

DOCUMENT NUMBER: 127:326529

TITLE: Conjugated linoleic acids for treating animals to maintain or increase CD-4 and CD-8 cell populations, and colon bacteria producing conjugated linoleic acids

INVENTOR(S): **Cook, Mark E.**; Pariza, Michael W.; Yang, Xiaoyun; Devoney, Danielle

PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA

SOURCE: U.S., 8 pp., Cont.-in-part of U.S. Ser. No. 875,896.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 13

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5674901	A	19971007	US 1995-458956	19950602
US 5430066	A	19950704	US 1992-875896	19920429
WO 9638137	A1	19961205	WO 1996-US3529	19960314
W: AL, AM, AT, AU, BB, BG, BR, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, IS, JP, KP, KR, LR, LV, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
RW: SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CG, GA				
AU 9652535	A1	19961218	AU 1996-52535	19960314
EP 831804	A1	19980401	EP 1996-908819	19960314
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 5856149	A	19990105	US 1996-759773	19961203



US 5827885	A	19981027	US 1997-912614	19970818
US 6020376	A	20000201	US 1998-170604	19981013
US 6060304	A	20000509	US 1998-170505	19981013

PRIORITY APPLN. INFO.:

US 1992-875896	A2	19920429
US 1995-456988	B2	19950601
US 1995-458956	A	19950602
WO 1996-US3529	W	19960314
US 1996-759773	A3	19961203
US 1997-912614	A3	19970818

AB Methods of treating animals to maintain or elevate CD-4 and CD-8 cell levels and to prevent or alleviate the adverse effects on the animal caused by the production or exogenous administration of tumor necrosis factor (TNF) or by a virus consist of administering to the animal a safe and effective amount of a conjugated linoleic acid (CLA) or a substance which is converted in the animal into CLA. A method of preparing CLA employing a bacteria isolated from a rat colon also is disclosed.

IC A61K031-20

INCL 514558000

CC 1-7 (Pharmacology)

Section cross-reference(s): 18

IT 544-70-7P 7307-45-1P

RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); MFM (Metabolic formation); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation); USES (Uses)  
(conjugated linoleic acids for treating animals to maintain or increase CD-4 and CD-8 cell populations, and colon bacteria producing conjugated linoleic acids)

IT 60-33-3DP, Linoleic acid, conjugated

RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(conjugated linoleic acids for treating animals to maintain or increase CD-4 and CD-8 cell populations, and colon bacteria producing conjugated linoleic acids)

IT 60-33-3, Linoleic acid, biological studies 544-70-7D, esters 7307-45-1D, esters

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(conjugated linoleic acids for treating animals to maintain or increase CD-4 and CD-8 cell populations, and colon bacteria producing conjugated linoleic acids)

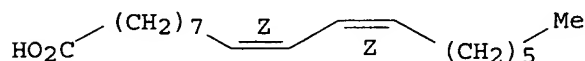
IT 544-70-7P 7307-45-1P

RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); MFM (Metabolic formation); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation); USES (Uses)  
(conjugated linoleic acids for treating animals to maintain or increase CD-4 and CD-8 cell populations, and colon bacteria producing conjugated linoleic acids)

RN 544-70-7 HCAPLUS

CN 9,11-Octadecadienoic acid, (9Z,11Z)- (9CI) (CA INDEX NAME)

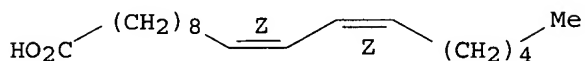
Double bond geometry as shown.



RN 7307-45-1 HCAPLUS

CN 10,12-Octadecadienoic acid, (10Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT 60-33-3DP, Linoleic acid, conjugated

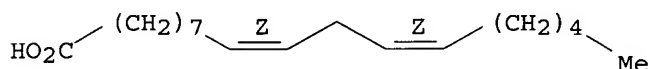
RL: BAC (Biological activity or effector, except adverse); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(conjugated linoleic acids for treating animals to maintain or increase CD-4 and CD-8 cell populations, and colon bacteria producing conjugated linoleic acids)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT 60-33-3, Linoleic acid, biological studies 544-70-7D, esters 7307-45-1D, esters

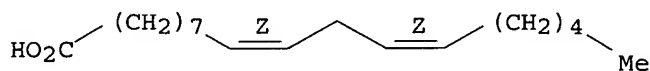
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugated linoleic acids for treating animals to maintain or increase CD-4 and CD-8 cell populations, and colon bacteria producing conjugated linoleic acids)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

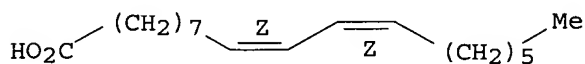
Double bond geometry as shown.



RN 544-70-7 HCAPLUS

CN 9,11-Octadecadienoic acid, (9Z,11Z)- (9CI) (CA INDEX NAME)

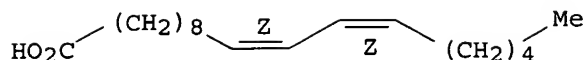
Double bond geometry as shown.



RN 7307-45-1 HCAPLUS

CN 10,12-Octadecadienoic acid, (10Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 35 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:90474 HCAPLUS

DOCUMENT NUMBER: 126:103150

TITLE: Methods for maintaining or elevating the CD-4 or CD-8 cell levels comprising the administration of conjugated linoleic acid; a new process for the manufacture of conjugated linoleic acid using Lactobacillus sp.

INVENTOR(S): Cook, Mark E.; Pariza, Michael W.; Yang, Xiaoyun; Devoney, Danielle

PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 13

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9638137	A1	19961205	WO 1996-US3529	19960314
W: AL, AM, AT, AU, BB, BG, BR, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, IS, JP, KP, KR, LR, LV, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
RW: SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CG, GA				
US 5674901	A	19971007	US 1995-458956	19950602
AU 9652535	A1	19961218	AU 1996-52535	19960314
EP 831804	A1	19980401	EP 1996-908819	19960314
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: US 1995-458956 A 19950602  
 US 1992-875896 A2 19920429  
 WO 1996-US3529 W 19960314

AB Methods of treating animals to maintain or elevate CD-4 and CD-8 cell levels and to prevent or alleviate the adverse effects on the animal caused by the production or exogenous administration of tumor necrosis factor (TNF) or by a virus consist of administering to the animal a safe and effective amount of a conjugated linoleic acid (CLA) or a substance which is converted in the animal into CLA. A method of preparing CLA employing a bacterium isolated from rat colon is also disclosed.

IC ICM A61K031-20

ICS A23C009-20; A23C009-127; C12P007-64; A23L001-29

CC 16-2 (Fermentation and Bioindustrial Chemistry)

Section cross-reference(s): 1, 18, 63

IT 60-33-3DP, 9,12-Octadecadienoic acid (Z,Z)-, conjugates

RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL

(Biological study); PREP (Preparation); USES (Uses)

(new process for the manufacture of conjugated linoleic acid using Lactobacillus sp. for maintaining or elevating the CD-4 or CD-8 cell levels)

IT 60-33-3, 9,12-Octadecadienoic acid (Z,Z)-, biological studies

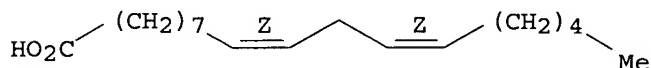
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL

(Biological study); PROC (Process)

(new process for the manufacture of conjugated linoleic acid using Lactobacillus sp. for maintaining or elevating the CD-4 or CD-8 cell

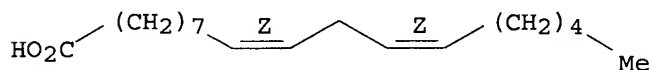
levels)  
 IT 60-33-3DP, 9,12-Octadecadienoic acid (Z,Z)-, conjugates  
 RL: BPN (Biosynthetic preparation); THU (Therapeutic use); BIOL  
 (Biological study); PREP (Preparation); USES (Uses)  
 (new process for the manufacture of conjugated linoleic acid using  
 Lactobacillus sp. for maintaining or elevating the CD-4 or CD-8 cell  
 levels)  
 RN 60-33-3 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT 60-33-3, 9,12-Octadecadienoic acid (Z,Z)-, biological studies  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
 (Biological study); PROC (Process)  
 (new process for the manufacture of conjugated linoleic acid using  
 Lactobacillus sp. for maintaining or elevating the CD-4 or CD-8 cell  
 levels)  
 RN 60-33-3 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 36 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:340760 HCAPLUS  
 DOCUMENT NUMBER: 125:9474  
 TITLE: Method of reducing body fat in animals by the  
 administration of conjugated linoleic acid  
 INVENTOR(S): Cook, Mark E.; Pariza, Michael W.; Park,  
 Yeonhwa  
 PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA  
 SOURCE: PCT Int. Appl., 17 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 13  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9606605	A1	19960307	WO 1995-US6191	19950512
W: JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5554646	A	19960910	US 1994-297472	19940829
EP 731699	A1	19960918	EP 1995-920484	19950512
EP 731699	B1	20020731		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 10508189	T2	19980818	JP 1995-508714	19950512
JP 2992836	B2	19991220		

AT 221377 E 20020815 AT 1995-920484 19950512  
 PRIORITY APPLN. INFO.: US 1994-297472 A 19940829  
 US 1992-875896 A2 19920429  
 US 1993-7413 A2 19930122  
 WO 1995-US6191 W 19950512

AB A method of reducing body fat in animals comprises administration of a safe and effective amount of a conjugated linoleic acid (I). Methods of preserving or increasing the animal's body protein by administering the conjugated I also are disclosed. Mice were fed either with 5.0% corn oil and 0.5% conjugated I (prepared from I and saffron oil) or 5.5% corn oil as control for 28 days, then they were sacrificed and body fat and protein were analyzed. The average body fat and protein were 4.00, and 18.87 as compared with 9.72, and 17.67% for the controls.

IC ICM A61K031-20  
 ICS A23L001-30

CC 18-5 (Animal Nutrition)

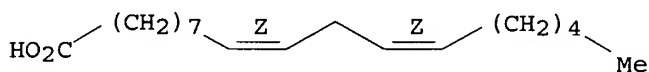
IT 60-33-3D, Linoleic acid, conjugates 1839-11-8,  
 9,11-Octadecadienoic acid 22880-03-1, 10,12-Octadecadienoic acid  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (reducing body fat in animals by administration of conjugated linoleic acid)

IT 60-33-3D, Linoleic acid, conjugates 1839-11-8,  
 9,11-Octadecadienoic acid 22880-03-1, 10,12-Octadecadienoic acid  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (reducing body fat in animals by administration of conjugated linoleic acid)

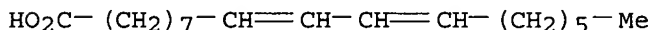
RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

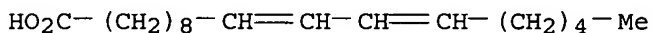
Double bond geometry as shown.



RN 1839-11-8 HCAPLUS  
 CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 22880-03-1 HCAPLUS  
 CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



L169 ANSWER 37 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1997:9931 HCAPLUS  
 DOCUMENT NUMBER: 126:113172  
 TITLE: Methods of attenuating the allergic response in animals

INVENTOR(S) : Cook, Mark E.; Cook, Ellen B.; Stahl, James  
 L.; Graziano, Frank M.; Pariza, Michael W.  
 PATENT ASSIGNEE(S) : Wisconsin Alumni Research Foundation, USA  
 SOURCE: U.S., 5 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5585400	A	19961217	US 1996-607498	19960227
CA 2245533	AA	19970904	CA 1996-2245533	19960827
WO 9732008	A1	19970904	WO 1996-US13798	19960827
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9669593	A1	19970916	AU 1996-69593	19960827
EP 883681	A1	19981216	EP 1996-930612	19960827
EP 883681	B1	20021023		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2000506840	T2	20000606	JP 1997-530915	19960827
EP 1126022	A2	20010822	EP 2001-112782	19960827
EP 1126022	A3	20020403		
EP 1126022	B1	20041124		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AT 226434	E	20021115	AT 1996-930612	19960827
ES 2180792	T3	20030216	ES 1996-930612	19960827
AT 282954	E	20041215	AT 2001-112782	19960827
PRIORITY APPLN. INFO.:			US 1996-607498	A 19960227
			EP 1996-930612	A3 19960827
			WO 1996-US13798	W 19960827
AB	Methods of treating animals to prevent or treat the adverse effects of type I or IgE mediated hypersensitivity in the animal comprises administering to the animal a safe and effective amount of a conjugated linoleic acid (CLA) or a substance which is converted in the animal into CLA. Methods of increasing the white blood cell count in a mammal and preserving white blood cells with CLA are also disclosed. Guinea pigs were fed 0.25 % CLA or control diets for 2 wk, then immunized with ovalbumin. The guinea pigs were euthenized and tracheae were collected; it was observed that tracheae from guinea pigs fed CLA were more stable in the superfusion system than tracheae of control-fed guinea pigs.			
IC	ICM A61K031-20			
INCL	514560000			
CC	1-7 (Pharmacology)			
IT	60-33-3D, Linoleic acid, conjugates			
	RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)			
	(conjugated linoleic acids for attenuating allergic responses)			
IT	60-33-3D, Linoleic acid, conjugates			
	RL: BAC (Biological activity or effector, except adverse); BSU (Biological			

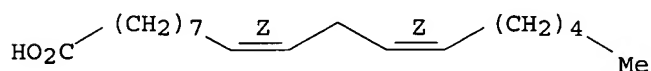
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugated linoleic acids for attenuating allergic responses)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 38 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:580571 HCAPLUS

DOCUMENT NUMBER: 125:266030

TITLE: Method using a conjugated linoleic acid for reducing body fat in animals

INVENTOR(S): Cook, Mark E.; Pariza, Michael W.; Park, Yeonhwa

PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA

SOURCE: U.S., 4 pp., Cont.-in-part of U.S. 5,430,066.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 13

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5554646	A	19960910	US 1994-297472	19940829
US 5430066	A	19950704	US 1992-875896	19920429
US 5428072	A	19950627	US 1993-7413	19930122
WO 9606605	A1	19960307	WO 1995-US6191	19950512
W: JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 731699	A1	19960918	EP 1995-920484	19950512
EP 731699	B1	20020731		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 10508189	T2	19980818	JP 1995-508714	19950512
JP 2992836	B2	19991220		
AT 221377	E	20020815	AT 1995-920484	19950512
ES 2180635	T3	20030216	ES 1995-920484	19950512
US 5760082	A	19980602	US 1996-659845	19960607
US 5760082	C1	20010306		
US 5814663	A	19980929	US 1996-736562	19960828

PRIORITY APPLN. INFO.:

US 1992-875896	A2	19920429
US 1993-7413	A2	19930122
US 1994-297472	A	19940829
WO 1995-US6191	W	19950512
US 1996-659845	A2	19960607

AB A method of reducing body fat comprises administering to the animal a safe and effective amount of a conjugated linoleic acid. Methods of preserving or increasing the animal's body protein by administering the conjugated linoleic acid also are disclosed.

IC ICM A61K031-20

ICS A61K031-23

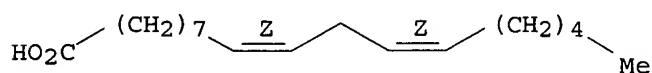
INCL 514560000

CC 1-10 (Pharmacology)

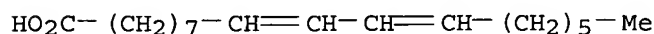
Section cross-reference(s): 18

- IT **60-33-3D**, Linoleic acid, conjugated  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugated linoleic acid for reducing body fat in animals)
- IT **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid  
 RL: AGR (Agricultural use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugated linoleic acid for reducing body fat in animals)
- IT **60-33-3**, Linoleic acid, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (conjugated linoleic acid for reducing body fat in animals, and conjugated linoleic acid preparation)
- IT **60-33-3D**, Linoleic acid, conjugated  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugated linoleic acid for reducing body fat in animals)
- RN **60-33-3** HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



- IT **1839-11-8**, 9,11-Octadecadienoic acid **22880-03-1**, 10,12-Octadecadienoic acid  
 RL: AGR (Agricultural use); FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (conjugated linoleic acid for reducing body fat in animals)
- RN **1839-11-8** HCAPLUS  
 CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



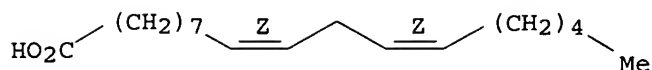
- RN **22880-03-1** HCAPLUS  
 CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



- IT **60-33-3**, Linoleic acid, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (conjugated linoleic acid for reducing body fat in animals, and conjugated linoleic acid preparation)
- RN **60-33-3** HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.





L169 ANSWER 39 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:256873 HCAPLUS

DOCUMENT NUMBER: 124:282023

TITLE: Method for controlling bird populations.

INVENTOR(S): Cook, Mark E.; Pariza, Michael W.; Lee, Kisun N.; Wentworth, Bernard C.

PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA

SOURCE: U.S., 4 pp., Cont.-in-part of U.S. 5,430,066.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 13

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5504114	A	19960402	US 1994-297471	19940829
US 5430066	A	19950704	US 1992-875896	19920429
US 5428072	A	19950627	US 1993-7413	19930122
PRIORITY APPLN. INFO.:			US 1992-875896	A2 19920429
			US 1993-7413	A2 19930122

AB The method comprises administering to the female birds a conjugated linoleic acid (CLA) which prevents their eggs from hatching. Baits containing the conjugated linoleic acid also are disclosed. CLA is preferably prepared from linolenic acid and safflower oil.

IC ICM A61K031-20

INCL 514558000

CC 5-5 (Agrochemical Bioregulators)

IT 60-33-3D, Linoleic acid, conjugated 1839-11-8,

9,11-Octadecadienoic acid 22880-03-1, 10,12-Octadecadienoic acid

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(bird-control agent)

IT 60-33-3D, Linoleic acid, conjugated 1839-11-8,

9,11-Octadecadienoic acid 22880-03-1, 10,12-Octadecadienoic acid

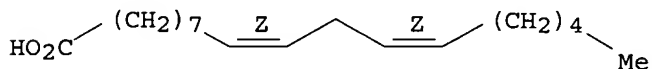
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(bird-control agent)

RN 60-33-3 HCAPLUS

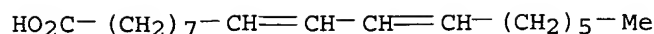
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



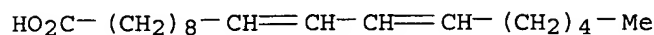
RN 1839-11-8 HCAPLUS

CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 22880-03-1 HCAPLUS

CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



L169 ANSWER 40 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:705732 HCAPLUS

DOCUMENT NUMBER: 123:142667

TITLE: Method of increasing the efficiency of feed conversion in animals.

INVENTOR(S): Cook, Mark E.; Pariza, Michael W.

PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA

SOURCE: U.S., 5 pp. Cont.-in-part of U.S. Ser. No. 875,896.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 13

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5428072	A	19950627	US 1993-7413	19930122
US 5430066	A	19950704	US 1992-875896	19920429
WO 9416690	A1	19940804	WO 1993-US11093	19931116
W: JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 680318	A1	19951108	EP 1994-902262	19931116
EP 680318	B1	20000426		
R: BE, CH, DE, ES, FR, GB, IE, IT, LI, NL, PT, SE				
JP 08505775	T2	19960625	JP 1993-516993	19931116
JP 2745245	B2	19980428		
US 5504114	A	19960402	US 1994-297471	19940829
US 5554646	A	19960910	US 1994-297472	19940829
PRIORITY APPLN. INFO.:			US 1992-875896	A2 19920429
			US 1993-7413	A 19930122
			WO 1993-US11093	W 19931116

AB A method of enhancing weight gain and feed efficiency in an animal comprises administering a conjugated linoleic acid, such as 9,11- or 10,12-octadecadienoic acid.

IC ICM A61K031-20

INCL 514560000

CC 18-6 (Animal Nutrition)

IT 1839-11-8, 9,11-Octadecadienoic acid 22880-03-1, 10,12-Octadecadienoic acid

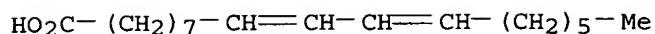
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(agent for increasing the efficiency of feed conversion in animals)

IT 1839-11-8, 9,11-Octadecadienoic acid 22880-03-1, 10,12-Octadecadienoic acid

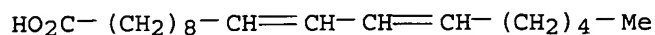
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(agent for increasing the efficiency of feed conversion in animals)

RN 1839-11-8 HCAPLUS

CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 22880-03-1 HCAPLUS  
 CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



L169 ANSWER 41 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1994:570585 HCAPLUS  
 DOCUMENT NUMBER: 121:170585  
 TITLE: Method for increasing the efficiency of feed conversion in animals  
 INVENTOR(S): Cook, Mark E.; Pariza, Michael W.  
 PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA  
 SOURCE: PCT Int. Appl., 17 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 13  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9416690	A1	19940804	WO 1993-US11093	19931116
W: JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5428072	A	19950627	US 1993-7413	19930122
EP 680318	A1	19951108	EP 1994-902262	19931116
EP 680318	B1	20000426		
R: BE, CH, DE, ES, FR, GB, IE, IT, LI, NL, PT, SE				
JP 08505775	T2	19960625	JP 1993-516993	19931116
JP 2745245	B2	19980428		
PRIORITY APPLN. INFO.:			US 1993-7413	A 19930122
			US 1992-875896	A2 19920429
			WO 1993-US11093	W 19931116

AB A method of enhancing weight gain and feed efficiency in an animal comprises administering to the animal a safe and effective amount of a conjugated linoleic acid (CLA). One week old chicks were fed a standard control diet supplemented with 0.5% CLA for 2 wk the feed conversion ( g feed required to produce 1 g increase in weight gain) was 1.46 as compared to 1.57 g feed.

IC ICM A61K031-20

CC 1-12 (Pharmacology)

IT 60-33-3D, Linoleic acid, conjugates

RL: BIOL (Biological study)

(animal feed containing, for efficiency of feed conversion)

IT 60-33-3D, Linoleic acid, conjugates

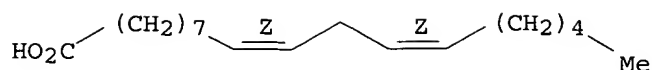
RL: BIOL (Biological study)

(animal feed containing, for efficiency of feed conversion)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 42 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:133025 HCAPLUS

DOCUMENT NUMBER: 120:133025

TITLE: Linoleic acid as feed and food additive for preventing weight loss and anorexia, due to immune stimulation.

INVENTOR(S): Cook, Mark E.; Pariza, Michael W.

PATENT ASSIGNEE(S): Wisconsin Alumni Research Foundation, USA

SOURCE: Eur. Pat. Appl., 11 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 13

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 579901	A1	19940126	EP 1993-105105	19930327
EP 579901	B1	19960306		
R: BE, CH, DE, FR, GB, IE, LI				
US 5430066	A	19950704	US 1992-875896	19920429
PRIORITY APPLN. INFO.:			US 1992-875896	A 19920429

AB Animal feed or human food which contains added free linoleic acid or conjugated linoleic acids (CLA) can enhance growth and prevent anorexia and weight loss due to immune stimulation (e.g., endotoxin exposure) and the adverse effects of catabolic hormones (i.e., IL-1). The CLAs are 9,11- and 10,12-octadecadienoic acid. Feed supplementation with 0.5% CLA suppressed the neg. effect of inoculation with Escherichia coli 0111:B4 endotoxin on the weight gain of chicken.

IC ICM A61K031-20  
ICS A23L001-30; A23K001-16

CC 18-6 (Animal Nutrition)  
Section cross-reference(s): 17, 63

IT 60-33-3, Linoleic acid, biological studies 1839-11-8,  
9,11-Octadecadienoic acid 22880-03-1, 10,12-Octadecadienoic acid  
RL: BIOL (Biological study)

(immune stimulation-caused weight loss suppression by, in animals and humans)

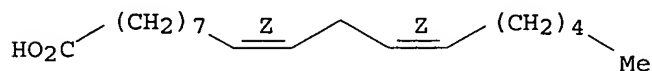
IT 60-33-3, Linoleic acid, biological studies 1839-11-8,  
9,11-Octadecadienoic acid 22880-03-1, 10,12-Octadecadienoic acid  
RL: BIOL (Biological study)

(immune stimulation-caused weight loss suppression by, in animals and humans)

RN 60-33-3 HCAPLUS

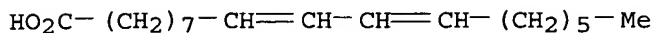
CN 9,12-Octadecadienoic acid (9Z,12Z) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



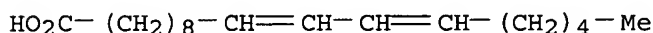
RN 1839-11-8 HCAPLUS

CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 22880-03-1 HCAPLUS

CN 10,12-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



L169 ANSWER 43 OF 56 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1990:528476 HCAPLUS

DOCUMENT NUMBER: 113:128476

TITLE: Lipoxxygenases from Zea mays L. Purification and physicochemical characteristics

AUTHOR(S): Poca, Eva; Rabinovitch-Chable, Helene;  
Cook-Moreau, Jeanne; Pages, Montserrat;  
Rigaud, Michel

CORPORATE SOURCE: Fac. Med., Limoges, 87000, Fr.

SOURCE: Biochimica et Biophysica Acta, Lipids and Lipid Metabolism (1990), 1045(2), 107-14  
CODEN: BBLA6; ISSN: 0005-2760

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Maize seeds after 5 d germination contain  $\geq 2$  lipoxxygenase isoenzymes, L1 and L2. Enzymes were extracted from acetone powder with 0.1M Na acetate (pH 4.5) buffer, supplemented with a nonionic detergent (0.1% Brij 99) and DETAPAC (0.1 mM). The pI of L1 is 6.40 and isoelec. focusing of L2 results 2 peaks with pI values in close proximity: 5.55 and 5.70. L1 and L2 are monomeric proteins of Mr 100,000 and 90,000, resp. Linoleic acid, 18:2(n - 6), is a good substrate of L2, but L1 has more affinity for  $\alpha$ -linolenic acid, 18:3(n - 3). These kinetic studies could indicate a different functional role of the 2 isoenzymes.

CC 7-2 (Enzymes)

Section cross-reference(s): 11

IT 60-33-3, 9,12-Octadecadienoic acid (Z,Z)-, reactions 463-40-1  
506-26-3 506-32-1

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with lipoxxygenase isoenzymes of corn, kinetics of)

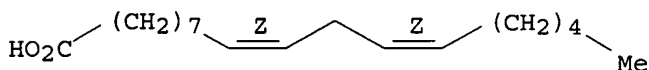
IT 60-33-3, 9,12-Octadecadienoic acid (Z,Z)-, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with lipoxxygenase isoenzymes of corn, kinetics of)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L169 ANSWER 44 OF 56 MEDLINE on STN DUPLICATE 6  
ACCESSION NUMBER: 2003153238 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 12669815  
TITLE: Dietary CLA decreased weight loss and extended survival following the onset of kidney failure in NZB/W F1 mice.  
AUTHOR: Yang Mingder; Cook Mark E  
CORPORATE SOURCE: Department of Animal Sciences, University of Wisconsin-Madison, Madison, Wisconsin 53706, USA.  
SOURCE: Lipids, (2003 Jan) 38 (1) 21-4.  
Journal code: 0060450. ISSN: 0024-4201.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200312  
ENTRY DATE: Entered STN: 20030403  
Last Updated on STN: 20031220  
Entered Medline: 20031219

## ABSTRACT:

In an earlier study, we showed that feeding CLA immediately after weaning prolonged survival of NZB/W F1 mice after onset of proteinuria. In the present study, the feeding of CLA was delayed until mice had developed proteinuria. Thirty NZB/W F1 mice were fed a regular rodent chow after weaning. Urine samples were collected to detect proteinuria. Once a mouse was proteinuria positive, it was then randomly assigned to a 0.5% CLA supplement semipurified diet or a control diet (supplement 0.5% corn oil). The next proteinuria positive mouse was then assigned to the opposite diet to which the first mouse was assigned. Mice fed the control diet lost 25% more body weight (13.0 g) than mice fed the CLA diet (9.7 g). Moreover, CLA-fed mice survived an average 1.7-fold longer (148 d) than mice fed the control diet (89 d) after the onset of proteinuria. This follow-up study confirmed that dietary CLA had a beneficial effect in the autoimmune NZB/W F1 mouse. In summary, the cachectic symptom of systemic lupus erythematosus was decreased by dietary CLA and survival days were increased over control group.

CONTROLLED TERM: Check Tags: Female  
Animals  
\*Dietary Supplements  
Disease Progression  
\*Kidney Failure: DH, diet therapy  
Kidney Failure: PA, pathology  
Linoleic Acid: AD, administration & dosage  
\*Linoleic Acid: TU, therapeutic use  
Linoleic Acids  
\*Lupus Erythematosus, Systemic: DH, diet therapy  
Lupus Erythematosus, Systemic: PA, pathology  
Mice  
Mice, Inbred NZB  
Proteinuria: DH, diet therapy  
Research Support, Non-U.S. Gov't  
Survival Analysis  
Weight Loss: DE, drug effects  
CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid)  
CHEMICAL NAME: 0 (CLA fatty acid); 0 (Linoleic Acids)

L169 ANSWER 45 OF 56 MEDLINE on STN DUPLICATE 12  
ACCESSION NUMBER: 2001059357 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 10946824  
TITLE: Dietary conjugated linoleic acid protects against end stage disease of systemic lupus erythematosus in the NZB/W F1 mouse.

AUTHOR: Yang M; Pariza M W; Cook M E  
 CORPORATE SOURCE: Department of Animal Science, University of Wisconsin-Madison, 53706-1284, USA.  
 SOURCE: Immunopharmacology and immunotoxicology, (2000 Aug) 22 (3) 433-49.  
 Journal code: 8800150. ISSN: 0892-3973.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200012  
 ENTRY DATE: Entered STN: 20010322  
 Last Updated on STN: 20010322  
 Entered Medline: 20001228

## ABSTRACT:

**Conjugated linoleic acid (CLA)** is a naturally occurring fatty acid with anti-carcinogenic, anti-atherosclerotic and immune-enhancing activities. Dietary CLA accelerated the onset of proteinuria in autoimmune-prone NZB/W F1 mice but did not affect anti-DNA antibody production. Body weight of the CLA group was decreased compared to the control group at the time proteinuria first developed. CLA group also had slightly earlier mortality than control fed mice, however the mean days of survival did not differ between CLA and control fed mice. Body weight loss between proteinuria onset and death was approximately twice as much in the control group as in the CLA group. Moreover, duration between proteinuria and death was longer in the CLA than in the control group. Our data suggested that dietary CLA may accelerate the autoimmune symptoms of NZB/W F1 mice, however, CLA protected against the disease related body weight loss and prolonged survival after proteinuria.

CONTROLLED TERM: Check Tags: Female  
 Animals  
 Antibodies, Antinuclear: BI, biosynthesis  
 \*Dietary Fats, Unsaturated: PD, pharmacology  
 \***Linoleic Acid: PD, pharmacology**  
 \*Lupus Erythematosus, Systemic: DH, diet therapy  
 Lupus Erythematosus, Systemic: ET, etiology  
 Lupus Erythematosus, Systemic: PA, pathology  
 Mice  
 Mice, Inbred NZB  
 Proteinuria: ET, etiology  
 Research Support, Non-U.S. Gov't  
 Weight Loss: DE, drug effects  
 CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid)  
 CHEMICAL NAME: 0 (Antibodies, Antinuclear); 0 (Dietary Fats, Unsaturated)

L169 ANSWER 46 OF 56 MEDLINE on STN DUPLICATE 17  
 ACCESSION NUMBER: 97417028 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 9270977  
 TITLE: Effect of **conjugated linoleic acid** on body composition in mice.  
 AUTHOR: Park Y; Albright K J; Liu W; Storkson J M; Cook M E  
 ; Pariza M W  
 CORPORATE SOURCE: Department of Food Microbiology and Toxicology, University of Wisconsin-Madison 53706, USA.  
 SOURCE: Lipids, (1997 Aug) 32 (8) 853-8.  
 Journal code: 0060450. ISSN: 0024-4201.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals

ENTRY MONTH: 199710  
ENTRY DATE: Entered STN: 19971024  
Last Updated on STN: 19980206  
Entered Medline: 19971014

## ABSTRACT:

The effects of **conjugated linoleic acid** (CLA) on body composition were investigated. ICR mice were fed a control diet containing 5.5% corn oil or a CLA-supplemented diet (5.0% corn oil plus 0.5% CLA). Mice fed CLA-supplemented diet exhibited 57% and 60% lower body fat and 5% and 14% increased lean body mass relative to controls ( $P < 0.05$ ). Total carnitine palmitoyltransferase activity was increased by dietary CLA supplementation in both fat pad and skeletal muscle; the differences were significant for fat pad of fed mice and skeletal muscle of fasted mice. In cultured 3T3-L1 adipocytes CLA treatment ( $1 \times 10^{-4}$ M) significantly reduced heparin-releasable lipoprotein lipase activity (-66%) and the intracellular concentrations of triacylglyceride (-8%) and glycerol (-15%), but significantly increased free glycerol in the culture medium (+22%) compared to control ( $P < 0.05$ ). The effects of CLA on body composition appear to be due in part to reduced fat deposition and increased lipolysis in adipocytes, possibly coupled with enhanced fatty acid oxidation in both muscle cells and adipocytes.

CONTROLLED TERM: Check Tags: Female; Male  
3T3 Cells  
Adipocytes: EN, enzymology  
Adipose Tissue: EN, enzymology  
Animals  
\*Body Composition: DE, drug effects  
Body Weight: DE, drug effects  
Carnitine O-Palmitoyltransferase: ME, metabolism  
Corn Oil: AD, administration & dosage  
Diet  
Dietary Fats: AD, administration & dosage  
\*Dietary Fats: PD, pharmacology  
Glycerol: ME, metabolism  
Linoleic Acids: AD, administration & dosage  
\*Linoleic Acids: PD, pharmacology  
Lipolysis: DE, drug effects  
Lipoprotein Lipase: AI, antagonists & inhibitors  
Liver: EN, enzymology  
Mice  
Mice, Inbred ICR  
Muscles: EN, enzymology  
Research Support, Non-U.S. Gov't  
CAS REGISTRY NO.: 56-81-5 (Glycerol); 8001-30-7 (Corn Oil)  
CHEMICAL NAME: 0 (Dietary Fats); 0 (Linoleic Acids); EC 2.3.1.21 (Carnitine O-Palmitoyltransferase); EC 3.1.1.34 (Lipoprotein Lipase)

L169 ANSWER 47 OF 56 MEDLINE on STN  
ACCESSION NUMBER: 2005004947 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 15625711  
TITLE: **Conjugated linoleic acid**  
preserves gastrocnemius muscle mass in mice bearing the colon-26 adenocarcinoma.  
AUTHOR: Graves Erin; Hitt Andrew; Pariza Michael W; Cook Mark E; McCarthy Donna O  
CORPORATE SOURCE: National Institute of Nursing Research, National Institutes of Health, Bethesda, MD, USA.  
SOURCE: Research in nursing & health, (2005 Feb) 28 (1) 48-55.  
Journal code: 7806136. ISSN: 0160-6891.  
PUB. COUNTRY: United States



DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200503  
ENTRY DATE: Entered STN: 20050105  
Last Updated on STN: 20050311  
Entered Medline: 20050310

## ABSTRACT:

Cancer cachexia is a syndrome of weight loss, muscle wasting, fatigue, and anorexia that occurs in patients with advanced or recurrent solid tumor disease. Tumor necrosis factor-alpha (TNFalpha) and prostaglandin E2 (PGE2) have been implicated in the biology of cachexia and serve as possible targets for treatment of this condition. **Conjugated linoleic**

**\*\*\*acid\*\*\*** (CLA) is a polyunsaturated fatty acid that alters the synthesis of PGE2 and reduces the negative effects of TNF on body weight of healthy mice. We hypothesized that a diet supplemented with .5% CLA might reduce muscle wasting in mice bearing the colon-26 adenocarcinoma, an animal model of cancer cachexia. CLA preserved gastrocnemius muscle mass and reduced TNF receptors in muscle of tumor-bearing mice. These data suggest that CLA may preserve muscle mass by reducing the catabolic effects of TNF on skeletal muscle.

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CONTROLLED TERM: Check Tags: Female  
Adenocarcinoma: CO, complications  
Adenocarcinoma: PA, pathology  
Animals  
\*Body Weight: DE, drug effects  
\*Cachexia: DT, drug therapy  
Cachexia: ET, etiology  
Colonic Neoplasms: CO, complications  
Colonic Neoplasms: PA, pathology  
Disease Models, Animal  
Enzyme-Linked Immunosorbent Assay  
\*Linoleic Acids, Conjugated: PD, pharmacology  
Mice  
\*Muscle, Skeletal: DE, drug effects  
Muscle, Skeletal: ME, metabolism  
Neoplasms, Experimental: CO, complications  
Neoplasms, Experimental: PA, pathology  
Tumor Cells, Cultured  
CHEMICAL NAME: 0 (Linoleic Acids, Conjugated)

L169 ANSWER 48 OF 56 MEDLINE on STN  
ACCESSION NUMBER: 2001158731 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 11171673  
TITLE: CLA reduces antigen-induced histamine and PGE(2) release from sensitized guinea pig tracheae.  
AUTHOR: Whigham L D; Cook E B; Stahl J L; Saban R; Bjorling D E; Pariza M W; **Cook M E**  
CORPORATE SOURCE: Department of Nutritional Sciences, Madison, Wisconsin 53706, USA.  
SOURCE: American journal of physiology. Regulatory, integrative and comparative physiology, (2001 Mar) 280 (3) R908-12.  
Journal code: 100901230. ISSN: 0363-6119.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200103  
ENTRY DATE: Entered STN: 20010404  
Last Updated on STN: 20010404

Entered Medline: 20010322

## ABSTRACT:

**Conjugated linoleic acid** (CLA) has been shown to enhance immune reactions such as lymphocyte blastogenesis and delayed-type hypersensitivity. We investigated the role of CLA in type I (immediate) hypersensitivity, using a guinea pig tracheal superfusion model for measuring antigen-induced airway smooth muscle contraction and inflammatory mediator release. Female Hartley guinea pigs were fed a diet supplemented with 0.25 g corn oil or linoleic acid/100 g of diet (control) or 0.25 g CLA/100 g of diet for at least 1 wk before and during active sensitization to ovalbumin antigen. Tracheae from sensitized guinea pigs were suspended in air-filled water-jacketed (37 degrees C) tissue chambers in a superfusion apparatus. Tracheae were superfused with buffer containing antigen, and tissue contraction was recorded. Superfusate was collected at 90-s intervals for evaluation of histamine and PGE(2) release. CLA did not affect antigen-induced tracheal contractions when expressed as gram contraction per gram tissue. CLA significantly reduced antigen-induced histamine and PGE(2) release. CLA appears to decrease release of some inflammatory mediators during type I hypersensitivity reactions.

CONTROLLED TERM: Check Tags: Female  
Animals  
\*Antigens: IM, immunology  
Carchol: PD, pharmacology  
Dietary Fats: AD, administration & dosage  
\*Dinoprostone: SE, secretion  
Eating  
Guinea Pigs  
\*Histamine Release: DE, drug effects  
\*Hypersensitivity, Immediate: IM, immunology  
Hypersensitivity, Immediate: PP, physiopathology  
Linoleic Acid: AD, administration & dosage  
Linoleic Acid: AN, analysis  
\*Linoleic Acid: PD, pharmacology  
Muscle Contraction: DE, drug effects  
Ovalbumin: IM, immunology  
Trachea: CH, chemistry  
\*Trachea: IM, immunology  
\*Trachea: PH, physiology  
Weight Gain  
CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid); 363-24-6 (Dinoprostone); 51-83-2 (Carchol); 9006-59-1 (Ovalbumin)  
CHEMICAL NAME: 0 (Antigens); 0 (Dietary Fats)

L169 ANSWER 49 OF 56 MEDLINE on STN  
ACCESSION NUMBER: 1999106683 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 9890009  
TITLE: Nutritional effects on vaccination.  
AUTHOR: Cook M E  
CORPORATE SOURCE: Animal Sciences Department, University of Wisconsin, Madison 53706, USA.  
SOURCE: Advances in veterinary medicine, (1999) 41 53-9. Ref: 35  
Journal code: 9714525. ISSN: 1093-975X.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, TUTORIAL)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199901  
ENTRY DATE: Entered STN: 19990209

Last Updated on STN: 19990209  
Entered Medline: 19990128

## ABSTRACT:

Immune-induced cachectic response is an example of a biological opportunity to develop technologies that ensure improved performance in animal agriculture. We have estimated that reduced performance of immune stimulated animals, whether by exposure to conventional environments or through vaccination, results in more than U.S. \$500 million in reduced productivity. Nontraditional methods to alleviate the adverse effects of the immune response provide an opportunity for those skilled in the art of vaccinology and immunology to develop new technologies and feeding practices. Too often, biologists are blinded by the limits of their disciplines and rarely venture to the fringe of their field to engage in collaborations that at first glance do not seem logical. The examples of CLA and antigastrointestinal peptides suggest that new opportunities await in ensuring that the cost of the immune response is minimized and that new approaches to animal agriculture await discovery.

CONTROLLED TERM: \*Animal Nutrition  
Animals  
Anorexia: IM, immunology  
\*Anorexia: VE, veterinary  
Cholecystokinin: PH, physiology  
Drug Design  
Linoleic Acid  
Vaccination: AE, adverse effects  
\*Vaccination: VE, veterinary  
CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid); 9011-97-6 (Cholecystokinin)

L169 ANSWER 50 OF 56 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2002222459 EMBASE  
TITLE: Decreased antigen-induced eicosanoid release in  
conjugated linoleic acid-fed  
guinea pigs.  
AUTHOR: Whigham L.D.; Higbee A.; Bjorling D.E.; Park Y.; Pariza  
M.W.; Cook M.E.  
CORPORATE SOURCE: M.E. Cook, Animal Sciences Dept., Univ. of  
Wisconsin-Madison, 1675 Observatory Drive, Madison, WI  
53706, United States. mcook@facstaff.wisc.edu  
SOURCE: American Journal of Physiology - Regulatory Integrative and  
Comparative Physiology, (2002) Vol. 282, No. 4 51-4, pp.  
R1104-R1112.  
Refs: 43  
ISSN: 0363-6119 CODEN: AJPRDO  
COUNTRY: United States  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 026 Immunology, Serology and Transplantation  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
ENTRY DATE: Entered STN: 20020711  
Last Updated on STN: 20020711

ABSTRACT: This study investigated the capacity of conjugated  
\*\*\*linoleic\*\*\* acids (CLA) to reduce ex vivo antigen-induced  
release of eicosanoids in a type I hypersensitivity model. Guinea pigs were  
fed a diet containing 0.25% safflower oil (control) or 0.25% CLA [43% trans  
(t)10, cis (c)12; 41% c9, t11/t9, c11 18:2] for 2 wk before and during  
sensitization to ovalbumin (OVA). Lungs, tracheas, and bladders were incubated  
in physiological saline solution (PSS) for 1 h (basal mediator release) and  
challenged with OVA (0.01 g/1 PSS) for 1 h (mediator release in response to  
antigen). Eicosanoids were quantified by HPLC/tandem mass spectrometry or  
enzyme immunoassay. CLA feeding resulted in no change in basal release but

decreased eicosanoid release from sensitized tissues in response to antigen challenge in the following manner: thromboxane B(2), 6-keto-prostaglandin (PG)F(1 $\alpha$ ), PGF(2 $\alpha$ ), PGD(2), PGE(2) by 57-75% in lung, 45-65% in trachea, and 38-60% in bladder; and leukotriene C(4)/D(4)/E(4) by 87, 90, and 50% in lung, trachea, and bladder, respectively. These data indicate that feeding CLA reduces lipid-derived inflammatory mediators produced by this type I hypersensitivity model.

CONTROLLED TERM: Medical Descriptors:  
\*prostaglandin release  
\*fat intake  
guinea pig  
immediate type hypersensitivity  
lung  
trachea  
bladder  
enzyme immunoassay  
inflammation  
antigen detection  
nonhuman  
female  
animal experiment  
controlled study  
animal tissue  
article  
priority journal  
Drug Descriptors:  
\*antigen  
\*icosanoid: EC, endogenous compound  
\*linoleic acid  
safflower oil  
ovalbumin  
thromboxane B2  
6 oxoprostaglandin F1 alpha  
prostaglandin F2 alpha  
prostaglandin D2  
prostaglandin E2  
CAS REGISTRY NO.: (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3;  
(safflower oil) 8001-23-8; (ovalbumin) 77466-29-6;  
(thromboxane B2) 54397-85-2; (prostaglandin F2 alpha)  
551-11-1; (prostaglandin D2) 41598-07-6; (prostaglandin E2)  
363-24-6

L169 ANSWER 51 OF 56 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2001195833 EMBASE  
TITLE: CLA reduces antigen-induced histamine and PGE(2) release from sensitized guinea pig tracheae.  
AUTHOR: Whigham L.D.; Cook E.B.; Stahl J.L.; Saban R.; Bjorling D.E.; Pariza M.W.; **Cook M.E.**  
CORPORATE SOURCE: M.E. Cook, Dept. of Animal Sciences, 1675 Observatory Drive, Madison, WI 53706, United States.  
mcook@facstaff.wisc.edu  
SOURCE: American Journal of Physiology - Regulatory Integrative and Comparative Physiology, (2001) Vol. 280, No. 3 49-3, pp. R908-R912.  
Refs: 33  
ISSN: 0363-6119 CODEN: AJPRDO  
COUNTRY: United States  
DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 015 Chest Diseases, Thoracic Surgery and Tuberculosis  
037 Drug Literature Index  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
ENTRY DATE: Entered STN: 20010614  
Last Updated on STN: 20010614

ABSTRACT: **Conjugated linoleic acid (CLA)** has been shown to enhance immune reactions such as lymphocyte blastogenesis and delayed-type hypersensitivity. We investigated the role of CLA in type I (immediate) hypersensitivity, using a guinea pig tracheal superfusion model for measuring antigen-induced airway smooth muscle contraction and inflammatory mediator release. Female Hartley guinea pigs were fed a diet supplemented with 0.25 g corn oil or linoleic acid/100 g of diet (control) or 0.25 g CLA/100 g of diet for at least 1 wk before and during active sensitization to ovalbumin antigen. Tracheae from sensitized guinea pigs were suspended in air-filled water-jacketed (37°C) tissue chambers in a superfusion apparatus. Tracheae were superfused with buffer containing antigen, and tissue contraction was recorded. Superfusate was collected at 90-s intervals for evaluation of histamine and PGE(2) release. CLA did not affect antigen-induced tracheal contractions when expressed as gram contraction per gram tissue. CLA significantly reduced antigen-induced histamine and PGE(2) release. CLA appears to decrease release of some inflammatory mediators during type I hypersensitivity reactions.

CONTROLLED TERM: Medical Descriptors:  
\*immediate type hypersensitivity  
\*trachea  
guinea pig  
lymphocyte  
lymphocyte transformation  
delayed hypersensitivity  
dietary intake  
diet supplementation  
prostaglandin release  
histamine release  
trachea muscle  
smooth muscle contraction  
nonhuman  
female  
animal experiment  
controlled study  
article  
priority journal  
Drug Descriptors:  
\*linoleic acid: DV, drug development  
\*conjugated linoleic acid: DV, drug development  
antigen  
histamine: EC, endogenous compound  
prostaglandin E2: EC, endogenous compound  
unclassified drug  
CAS REGISTRY NO.: (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3;  
(histamine) 51-45-6, 56-92-8, 93443-21-1; (prostaglandin  
E2) 363-24-6

L169 ANSWER 52 OF 56 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on  
STN  
ACCESSION NUMBER: 2005:534462 BIOSIS  
DOCUMENT NUMBER: PREV200510319965  
TITLE: Conditions in which t10, c12 conjugated linoleic acid (CLA)  
is proinflammatory.

AUTHOR(S): Butz, Daniel E. [Reprint Author]; Cook, Mark E.

CORPORATE SOURCE: Univ Wisconsin, Madison, WI 53706 USA

SOURCE: FASEB Journal, (MAR 7 2005) Vol. 19, No. 5, Suppl. S, Part 2, pp. A1345.  
 Meeting Info.: Experimental Biology 2005 Meeting/35th International Congress of Physiological Sciences. San Diego, CA, USA. March 31 -April 06, 2005. Amer Assoc Anatomists; Amer Assoc Immunologists; Amer Physiol Soc; Amer Soc Biochem & Mol Biol; Amer Soc Investigat Pathol; Amer Soc Nutr Sci; Amer Soc Pharmacol & Expt Therapeut; Int Union Physiol Sci.  
 CODEN: FAJOEC. ISSN: 0892-6638.

DOCUMENT TYPE: Conference; (Meeting)  
 Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 1 Dec 2005  
 Last Updated on STN: 1 Dec 2005

ABSTRACT:t10,c12 conjugated linoleic acid (CLA) is a known inhibitor of cyclooxygenase-2 (COX-2) and hence should be anti-inflammatory. The objective of this study was to determine the effect of t10,c12 CLA on inflammation in collagen induced arthritis (CIA). Male DBA/1 mice were immunized against chick type II collagen(CII) on 0d. On 21d mice were fed t10,c12 CLA, CLA90 (50:50 mix of c9,t11 and t10,c12 CLA), corn oil (CO), or CO + indomethacin (indo, a known COX inhibitor) injections (daily 26d to 35d), and were given an i.p. booster injection. Plasma anti-CII antibody was measured on day 35. Peak inflammation developed within 10 days of the booster injection. CO and CLA fed mice exhibited similar joint inflammation, which was eliminated in CO fed mice by indo treatment, while t10,c12 CLA fed mice had a 2-fold increase in inflammation. The t10,c12 CLA fed and indo groups had CII-IgG(2a) titers 2x higher than the CO group, and the group fed CLA90 had an intermediate titer. These data suggest that the pro-inflammatory action of dietary t10,c12 CLA was independent of COX-2 and CII-IgG(2a) antibody titer, and c9,t11 CLA combined with t10,c12 CLA will prevent the pro-inflammatory effect of t10,c12 CLA. We conclude that the t10,c12 CLA isomer when fed alone increases inflammation in CIA, and that the t10,c12 isomer should not be fed in the absence of the c9,t11 CLA isomer.

CONCEPT CODE: General biology - Symposia, transactions and proceedings 00520  
 Biochemistry studies - General 10060  
 Biochemistry studies - Proteins, peptides and amino acids 10064  
 Pathology - Therapy 12512  
 Nutrition - General studies, nutritional status and methods 13202  
 Blood - Blood and lymph studies 15002  
 Blood - Blood cell studies 15004  
 Bones, joints, fasciae, connective and adipose tissue - Pathology 18006  
 Pharmacology - Connective tissue, bone and collagen-acting drugs 22012  
 Pharmacology - Immunological processes and allergy 22018  
 Immunology - General and methods 34502  
 Immunology - Immunopathology, tissue immunology 34508

INDEX TERMS: Major Concepts  
 Immune System (Chemical Coordination and Homeostasis);  
 Nutrition

INDEX TERMS: Parts, Structures, & Systems of Organisms  
 plasma: blood and lymphatics

INDEX TERMS: Diseases

arthritis: immune system disease, joint disease  
Arthritis (MeSH)

INDEX TERMS: Chemicals & Biochemicals  
type II collagen; indomethacin: enzyme inhibitor-drug,  
antiarthritic-drug, immunologic-drug,  
antiinflammatory-drug; conjugated linoleic acid: dietary  
intake

INDEX TERMS: Miscellaneous Descriptors  
corn oil: fats and oils

ORGANISM: Classifier  
Galliformes 85536  
Super Taxa  
Aves; Vertebrata; Chordata; Animalia  
Organism Name  
chicken (common): chick  
Taxa Notes  
Animals, Birds, Chordates, Nonhuman Vertebrates,  
Vertebrates

ORGANISM: Classifier  
Muridae 86375  
Super Taxa  
Rodentia; Mammalia; Vertebrata; Chordata; Animalia  
Organism Name  
DBA/1 mouse (common): male  
Taxa Notes  
Animals, Chordates, Mammals, Nonhuman Vertebrates,  
Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: 53-86-1 (indomethacin)  
121250-47-3 (conjugated linoleic acid)

L169 ANSWER 53 OF 56 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on  
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ACCESSION NUMBER: 2004:287817 BIOSIS  
DOCUMENT NUMBER: PREV200400286574  
TITLE: Conjugated Linoleic Acid (CLA) Reduces Inflammation in  
Anti-Type II Collagen Monoclonal Antibody-Induced Arthritis  
in Mice.  
AUTHOR(S): Butz, Daniel E [Reprint Author]; Cook, Mark  
E  
CORPORATE SOURCE: Nutritional Sciences, University of Wisconsin - Madison,  
1675 Observatory Dr., Madison, Wisconsin, 53706, USA  
debutz@wisc.edu  
SOURCE: FASEB Journal, (2004) Vol. 18, No. 4-5, pp. Abst. 133.8.  
<http://www.fasebj.org/>. e-file.  
Meeting Info.: FASEB Meeting on Experimental Biology:  
Translating the Genome. Washington, District of Columbia,  
USA. April 17-21, 2004. FASEB.  
ISSN: 0892-6638 (ISSN print).  
DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 16 Jun 2004  
Last Updated on STN: 16 Jun 2004

ABSTRACT: A cyclooxygenase-2 (COX-2) product, prostaglandin E2, is a potent  
inflammatory mediator. Previous work has shown that CLA is a potent COX  
inhibitor both in vitro and in vivo. The objective of this study was to  
determine if CLA could reduce inflammation in the mouse anti-collagen  
monoclonal antibody-induced arthritis model. Male BALB/c mice were fed a  
semi-purified diet supplemented with 0.5% CLA or corn oil (CO). After 3 weeks  
of feeding, mice were injected with 2mg anti-mouse type II collagen antibodies

in 200 (1 PBS i.v. Arthritis was induced 48 hours later with 25 (g of lipopolysaccharide in 100 (1 PBS i.p. Clinical arthritis score was measured for 10 days following injections using previously established parameters. After induction of a moderate inflammation, mice fed a CLA diet exhibited significantly less swelling (CLA approximately 65% of controls) in affected paws compared to CO fed controls after 5 and 6 days. Using the same feeding procedure in an alternate arthritis model we induced inflammation using the collagen induced arthritis (CIA) protocol. Male DBA/1J mice were immunized against type II collagen, and plasma anti-CII antibody was measured. CLA fed mice had a higher anti-CII IgG2a and lower anti-CII IgG1 titer suggesting a Th1 response. We did not see a difference in clinical arthritis score in affected paws in the CIA model. These studies suggest that feeding CLA in the CIA model may favor a Th1 response, but will reduce inflammation when anti-CII antibodies are used to induce arthritis. Together these studies suggest that CLA's effect on arthritis associated inflammation is anti-inflammatory, and not due to T helper function. CLA feeding may have anti-inflammatory properties that could be therapeutic, but not preventive in arthritis.

CONCEPT CODE: General biology - Symposia, transactions and proceedings  
00520  
Biochemistry studies - Proteins, peptides and amino acids  
10064  
Pathology - Therapy 12512  
Bones, joints, fasciae, connective and adipose tissue -  
Pathology 18006  
Pharmacology - General 22002  
Pharmacology - Connective tissue, bone and collagen-acting  
drugs 22012  
Pharmacology - Immunological processes and allergy 22018  
Toxicology - General and methods 22501  
Immunology - General and methods 34502

INDEX TERMS: Major Concepts  
Immune System (Chemical Coordination and Homeostasis);  
Pharmacology

INDEX TERMS: Diseases  
arthritis: joint disease, chemically-induced  
Arthritis (MeSH)

INDEX TERMS: Chemicals & Biochemicals  
IgG1 [immunoglobulin G1]; IgG2a [immunoglobulin G2a];  
anti-type II collagen monoclonal antibody; conjugated  
linoleic acid: antiarthritic-drug, antiinflammatory-  
drug, immunologic-drug; type II collagen

INDEX TERMS: Miscellaneous Descriptors  
Th1 response [T helper 1 response]; inflammation

ORGANISM: Classifier  
Muridae 86375  
Super Taxa  
Rodentia; Mammalia; Vertebrata; Chordata; Animalia  
Organism Name  
mouse (common): animal model, strain-BALB/c,  
strain-DBA/1J, male  
Taxa Notes  
Animals, Chordates, Mammals, Nonhuman Vertebrates,  
Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: 1839-11-8Q (conjugated linoleic acid)  
121250-47-3Q (conjugated linoleic acid)

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ACCESSION NUMBER: 2004:283551 BIOSIS  
DOCUMENT NUMBER: PREV200400277158



TITLE: t10, c12 Conjugated Linoleic Acid (CLA) Fed Mice Exhibit Compensatory Growth After Immune Challenge.

AUTHOR(S): Butz, Daniel E [Reprint Author]; Trott, David L; Yang, Mingder; Cook, Mark E

CORPORATE SOURCE: Nutritional Sciences, University of Wisconsin - Madison, 1675 Observatory Dr., Madison, Wisconsin, 53706, USA debutz@wisc.edu

SOURCE: FASEB Journal, (2004) Vol. 18, No. 4-5, pp. Abst. 133.10. <http://www.fasebj.org/>. e-file.  
Meeting Info.: FASEB Meeting on Experimental Biology: Translating the Genome. Washington, District of Columbia, USA. April 17-21, 2004. FASEB.  
ISSN: 0892-6638 (ISSN print).

DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 9 Jun 2004  
Last Updated on STN: 9 Jun 2004

ABSTRACT: Previous work demonstrated that feeding combined isomers of CLA partially overcame endotoxin-induced growth depression. It is known that c9,t11 CLA reduces tumor necrosis factor (TNF) secretion, and t10,c12 CLA inhibits prostaglandin synthesis in RAW 264.7 macrophages. The objective of this study was to determine which isomer of CLA protected against endotoxin-induced growth depression. Weanling, male, BALB/c mice were fed a semi-purified diet supplemented with 0.25% c9,t11 or t10,c12 CLA or olive oil (OO, 80% c9,C18:1). After 15 days of feeding mice were challenged with 1mg/kg lipopolysaccharide (LPS) or vehicle i.p. Body weight and feed intake were measured for 7 days after injection. We observed a weight loss of 6% of initial body weight 24 hours after injection in all LPS stimulated groups. After maximal weight loss in stimulated groups the t10,c12 CLA fed group regained weight significantly faster than did the OO and the c9,t11 CLA fed groups. After maximal weight loss the growth rate in the stimulated t10,c12 CLA group was significantly greater than the stimulated OO fed controls. The c9,t11 CLA fed group had a growth rate intermediate to that of the stimulated OO and t10,c12 CLA fed groups (possibly due to t10,c12 CLA isomer contamination). The t10,c12 CLA fed group recovered initial body weight after 67 hours and caught up to the sham injected control group by 170 hours. The c9,t11 CLA and OO fed groups recovered initial body weight by 124 hours and remained approximately 1 day of growth behind the sham injected group throughout the experiment. While we failed to show that CLA isomers prevent immune induced growth depression, we did demonstrate that t10,c12 CLA fed mice exhibit compensatory growth after immune stimulation.

CONCEPT CODE: General biology - Symposia, transactions and proceedings 00520  
Biochemistry studies - Lipids 10066  
Biochemistry studies - Carbohydrates 10068  
Nutrition - General studies, nutritional status and methods 13202  
Development and Embryology - General and descriptive 25502

INDEX TERMS: Major Concepts  
Development; Nutrition

INDEX TERMS: Chemicals & Biochemicals  
cis 9,trans 11 conjugated linoleic acid: dietary supplement; lipopolysaccharide; trans 10,cis 12 conjugated linoleic acid: dietary supplement

INDEX TERMS: Miscellaneous Descriptors  
body weight; compensatory growth; feed intake; immune induced growth depression; olive oil: fats and oils

ORGANISM: Classifier

Muridae 86375  
 Super Taxa  
 Rodentia; Mammalia; Vertebrata; Chordata; Animalia  
 Organism Name  
 Balb/C mouse (common): animal model, weanling, male  
 Taxa Notes  
 Animals, Chordates, Mammals, Nonhuman Vertebrates,  
 Nonhuman Mammals, Rodents, Vertebrates  
 REGISTRY NUMBER: 2420-56-6 (trans 10,cis 12 conjugated linoleic acid)

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ACCESSION NUMBER: 2002:370195 BIOSIS

DOCUMENT NUMBER: PREV200200370195

TITLE: CLA modulates immune induced cachexia after immunization  
 with arthritogenic collagen type II.

AUTHOR(S): Butz, Daniel E. [Reprint author]; Cook, Mark  
 E.

CORPORATE SOURCE: Nutritional Science, University of Wisconsin-Madison, 1675  
 Observatory Dr., Madison, WI, 53706, USA

SOURCE: FASEB Journal, (March 22, 2002) Vol. 16, No. 5, pp. A985.  
 print.

Meeting Info.: Annual Meeting of Professional Research  
 Scientists on Experimental Biology. New Orleans, Louisiana,  
 USA. April 20-24, 2002.

CODEN: FAJOEC. ISSN: 0892-6638.

DOCUMENT TYPE: Conference; (Meeting)  
 Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 3 Jul 2002

Last Updated on STN: 3 Jul 2002

ABSTRACT: Conjugated linoleic acid (CLA) is well known to prevent immune induced  
 body wasting and anorexia. In a study investigating the role of CLA in  
 arthritic inflammatory disease, the cachectic effects of immune stimulation  
 depended on the state of the immune response and/or the nature of the  
 immunogen. Male DBA/1 mice (n=16) were fed a semi-purified diet supplemented  
 with either corn oil or CLA (41% c9,t11 and 42%t10, c12). After fed treatment  
 diet for 3 weeks mice were immunized with arthritogenic chicken collagen type  
 II (C-II). On day zero 100 µg C-II in Freund's complete adjuvant was injected  
 s.c. in the base of the tail. On day 21, 100 µg C-II in Freund's incomplete  
 adjuvant was given i.p. Feed and body weights were measured every 3 to 4 days.  
 CLA fed mice had significantly decreased weight loss and increased feed intake  
 after primary immunization, when compared to corn oil fed controls. However,  
 upon secondary immunization CLA animals lost more weight than did controls,  
 while consuming slightly more feed. This study confirms CLAs protective effect  
 in endotoxin-induced cachexia, but also suggest the nature of the immunogen  
 alters CLAs role in immune induced cachexia.

CONCEPT CODE: General biology - Symposia, transactions and proceedings  
 00520

Nutrition - General studies, nutritional status and methods  
 13202

Nutrition - Malnutrition and obesity 13203

Bones, joints, fasciae, connective and adipose tissue -  
 Pathology 18006

Immunology - General and methods 34502

Immunology - Immunopathology, tissue immunology 34508

INDEX TERMS: Major Concepts

Immune System (Chemical Coordination and Homeostasis);  
 Nutrition

INDEX TERMS: Diseases

arthritic inflammatory disease: immune system disease,  
joint disease

INDEX TERMS: Diseases  
immune induced cachexia: immune system disease,  
nutritional disease

INDEX TERMS: Chemicals & Biochemicals  
arthritogenic collagen type II; conjugated linoleic  
acid; endotoxin

INDEX TERMS: Methods & Equipment  
arthritogenic collagen type II immunization:  
immunization method

INDEX TERMS: Miscellaneous Descriptors  
Meeting Abstract

ORGANISM: Classifier  
Muridae 86375  
Super Taxa  
Rodentia; Mammalia; Vertebrata; Chordata; Animalia  
Organism Name  
mouse: DBA/1, male  
Taxa Notes  
Animals, Chordates, Mammals, Nonhuman Vertebrates,  
Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: 1839-11-8Q (conjugated linoleic acid)  
121250-47-3Q (conjugated linoleic acid)

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ACCESSION NUMBER: 1999:170198 BIOSIS  
DOCUMENT NUMBER: PREV199900170198  
TITLE: The effect of dietary **conjugated linoleic  
acid** on NZB/W F1 mice, an animal model for human  
**systemic lupus erythematosus**.

AUTHOR(S): Yang, M.; Pariza, M. W.; **Cook, M. F.**  
CORPORATE SOURCE: Univ. Wisconsin, Madison, WI 53706, USA  
SOURCE: FASEB Journal, (March 12, 1999) Vol. 13, No. 4 PART 1, pp.  
A588. print.  
Meeting Info.: Annual Meeting of the Professional Research  
Scientists for Experimental Biology 99. Washington, D.C.,  
USA. April 17-21, 1999.  
CODEN: FAJOEC. ISSN: 0892-6638.

DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 19 Apr 1999  
Last Updated on STN: 19 Apr 1999

CONCEPT CODE: Nutrition - General studies, nutritional status and methods  
13202  
Urinary system - General and methods 15501  
Bones, joints, fasciae, connective and adipose tissue -  
General and methods 18001  
Immunology - General and methods 34502  
General biology - Symposia, transactions and proceedings  
00520

INDEX TERMS: Major Concepts  
Immune System (Chemical Coordination and Homeostasis);  
Nutrition

INDEX TERMS: Diseases  
proteinuria: urologic disease  
Proteinuria (MeSH)

INDEX TERMS: Diseases

**systemic lupus erythematosus**  
: connective tissue disease, immune system disease  
**Lupus Erythematosus,**  
**Systemic (MeSH)**

INDEX TERMS: Chemicals & Biochemicals  
**conjugated linoleic acid:**  
dietary

INDEX TERMS: Miscellaneous Descriptors  
mortality; Meeting Abstract

ORGANISM: Classifier  
Muridae 86375  
Super Taxa  
Rodentia; Mammalia; Vertebrata; Chordata; Animalia  
Organism Name  
NZB/W F1 mouse: animal model  
Taxa Notes  
Animals, Chordates, Mammals, Nonhuman Vertebrates,  
Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: **1839-11-8Q (conjugated linoleic acid)**  
**121250-47-3Q (conjugated linoleic acid)**  
**60-33-3 (LINOLEIC ACID)**

=&gt; □

TEXT SEARCH #1  
(narrow)

=&gt; file hcaplus

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FILE COVERS 1907 - 26 Jan 2006 VOL 144 ISS 5

FILE LAST UPDATED: 25 Jan 2006 (20060125/ED)

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=&gt; d que nos L26

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L6          STR
L7          88 SEA FILE=REGISTRY FAM FUL L6
L8          STR
L9          29 SEA FILE=REGISTRY FAM FUL L8
L15         1344 SEA FILE=HCAPLUS ABB=ON PLU=ON L7
L16         705 SEA FILE=HCAPLUS ABB=ON PLU=ON L9
L19         7697 SEA FILE=HCAPLUS ABB=ON PLU=ON ANTIRHEUMATIC?/OBI
L20         19410 SEA FILE=HCAPLUS ABB=ON PLU=ON ARTHRITIS/OBI (L) RHEUMATOID?/
          OBI
L21         439 SEA FILE=HCAPLUS ABB=ON PLU=ON ARTHUS/OBI
L22         5883 SEA FILE=HCAPLUS ABB=ON PLU=ON GLOMERULONEPHRIT?/OBI
L23         213 SEA FILE=HCAPLUS ABB=ON PLU=ON SERUM SICKNESS?/OBI
L24         10829 SEA FILE=HCAPLUS ABB=ON PLU=ON LUPUS ERYTHEMATOSUS+NT/CT
L26         6 SEA FILE=HCAPLUS ABB=ON PLU=ON ((L15 OR L16) AND (L19 OR L20
          OR L21 OR L22 OR L23 OR L24))
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=&gt; d que nos L33

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L6          STR
L7          88 SEA FILE=REGISTRY FAM FUL L6
L8          STR
L9          29 SEA FILE=REGISTRY FAM FUL L8
L15         1344 SEA FILE=HCAPLUS ABB=ON PLU=ON L7
L16         705 SEA FILE=HCAPLUS ABB=ON PLU=ON L9
L32         17 SEA FILE=HCAPLUS ABB=ON PLU=ON (HYPERSENSITIV?/OBI (3A)
          (TYPE III/OBI OR TYPE 3/OBI))
L33         1 SEA FILE=HCAPLUS ABB=ON PLU=ON L32 AND (L15 OR L16)
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=&gt; d que nos L36

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L6          STR
L7          88 SEA FILE=REGISTRY FAM FUL L6
L8          STR
L9          29 SEA FILE=REGISTRY FAM FUL L8
L15         1344 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7
L16         705 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9
L35         41 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (HYPERSENSITIV? (3A) (TYPE
          III OR TYPE 3))/BI
L36         1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L35 AND (L15 OR L16)

```

=&gt; d que nos L38

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L6          STR
L7          88 SEA FILE=REGISTRY FAM FUL L6
L8          STR
L9          29 SEA FILE=REGISTRY FAM FUL L8
L10         STR
L11         1622 SEA FILE=REGISTRY FAM FUL L10
L12         STR
L13         73 SEA FILE=REGISTRY FAM FUL L12
L15         1344 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7
L16         705 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9
L19         7697 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIRHEUMATIC?/OBI
L20         19410 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ARTHRITIS/OBI (L) RHEUMATOID?/
          OBI
L21         439 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ARTHUS/OBI
L22         5883 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLOMERULONEPHRIT?/OBI
L23         213 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SERUM SICKNESS?/OBI
L24         10829 SEA FILE=HCAPLUS ABB=ON  PLU=ON  LUPUS ERYTHEMATOSUS+NT/CT
L26         6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L15 OR L16) AND (L19 OR L20
          OR L21 OR L22 OR L23 OR L24)
L29         2382 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L11 (L) (THU OR PAC OR BAC OR
          PKT OR DMA)/RL
L30         102 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13 (L) (THU OR PAC OR BAC OR
          PKT OR DMA)/RL
L31         35 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L29 OR L30) AND (L19 OR L20
          OR L21 OR L22 OR L23 OR L24)
L38         5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26 AND L31 ;

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=&gt; d que nos L39

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L6          STR
L7          88 SEA FILE=REGISTRY FAM FUL L6
L8          STR
L9          29 SEA FILE=REGISTRY FAM FUL L8
L10         STR
L11         1622 SEA FILE=REGISTRY FAM FUL L10
L12         STR
L13         73 SEA FILE=REGISTRY FAM FUL L12
L15         1344 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7
L16         705 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L9
L17         38331 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L11
L18         3693 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13
L19         7697 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIRHEUMATIC?/OBI
L20         19410 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ARTHRITIS/OBI (L) RHEUMATOID?/

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OBI

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L21      439 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ARTHUS/OBI
L22      5883 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLOMERULONEPHRIT?/OBI
L23      213 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SERUM SICKNESS?/OBI
L24      10829 SEA FILE=HCAPLUS ABB=ON  PLU=ON  LUPUS ERYTHEMATOSUS+NT/CT
L25      72 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L15 OR L16 OR L17 OR L18)
        AND (L19 OR L20 OR L21 OR L22 OR L23 OR L24)
L26      6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L15 OR L16) AND (L19 OR L20
        OR L21 OR L22 OR L23 OR L24)
L39      6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L26 AND L25

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=> s (L26 or L33 or L36 or L38 or L39) not L165

L170 5 (L26 OR L33 OR L36 OR L38 OR L39) NOT L165

=> file medline

FILE 'MEDLINE' ENTERED AT 12:26:19 ON 26 JAN 2006

FILE LAST UPDATED: 25 JAN 2006 (20060125/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.

The MEDLINE reload for 2006 will soon be available. For details on the 2005 reload, enter HELP RLOAD at an arrow prompt (=>).

See also:

<http://www.nlm.nih.gov/mesh/>  
[http://www.nlm.nih.gov/pubs/techbull/nd04/nd04\\_mesh.html](http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html)  
[http://www.nlm.nih.gov/pubs/techbull/nd05/nd05\\_med\\_data\\_changes.html](http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html)  
[http://www.nlm.nih.gov/pubs/techbull/nd05/nd05\\_2006\\_MeSH.html](http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html)

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

This file contains CAS Registry Numbers for easy and accurate

=> d que nos L64

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L6      STR
L7      88 SEA FILE=REGISTRY FAM FUL L6
L8      STR
L9      29 SEA FILE=REGISTRY FAM FUL L8
L41     66 SEA FILE=MEDLINE ABB=ON  PLU=ON  L7
L42     SEL  PLU=ON  L7 1- CHEM :      143 TERMS
L43     1454 SEA FILE=MEDLINE ABB=ON  PLU=ON  L42
L44     0 SEA FILE=MEDLINE ABB=ON  PLU=ON  L9
L45     SEL  PLU=ON  L9 1- CHEM :      57 TERMS
L46     187 SEA FILE=MEDLINE ABB=ON  PLU=ON  L45
L55     1454 SEA FILE=MEDLINE ABB=ON  PLU=ON  L41 OR L43
L56     187 SEA FILE=MEDLINE ABB=ON  PLU=ON  L44 OR L46
L58     7794 SEA FILE=MEDLINE ABB=ON  PLU=ON  IMMUNE COMPLEX DISEASES+NT/CT

L59     72531 SEA FILE=MEDLINE ABB=ON  PLU=ON  ARTHRITIS, RHEUMATOID+NT/CT
L60     5036 SEA FILE=MEDLINE ABB=ON  PLU=ON  ANTIRHEUMATIC AGENTS/CT
L62     29985 SEA FILE=MEDLINE ABB=ON  PLU=ON  GLOMERULONEPHRITIS+NT/CT
L63     32664 SEA FILE=MEDLINE ABB=ON  PLU=ON  LUPUS ERYTHEMATOSUS, SYSTEMIC+

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NT/CT  
 L64 6 SEA FILE=MEDLINE ABB=ON PLU=ON (L55 OR L56) AND ((L58 OR L59  
 OR L60) OR (L62 OR L63))

=> d que nos L65

L48 431 SEA FILE=MEDLINE ABB=ON PLU=ON LINOLEIC ACIDS, CONJUGATED/CT  
 L58 7794 SEA FILE=MEDLINE ABB=ON PLU=ON IMMUNE COMPLEX DISEASES+NT/CT  
 L59 72531 SEA FILE=MEDLINE ABB=ON PLU=ON ARTHRITIS, RHEUMATOID+NT/CT  
 L60 5036 SEA FILE=MEDLINE ABB=ON PLU=ON ANTIRHEUMATIC AGENTS/CT  
 L62 29985 SEA FILE=MEDLINE ABB=ON PLU=ON GLOMERULONEPHRITIS+NT/CT  
 L63 32664 SEA FILE=MEDLINE ABB=ON PLU=ON LUPUS ERYTHEMATOSUS, SYSTEMIC+  
 NT/CT  
 L65 3 SEA FILE=MEDLINE ABB=ON PLU=ON L48 AND ((L58 OR L59 OR L60)  
 OR (L62 OR L63))

=> s L64-L65 not L166

L171 5 (L64 OR L65) NOT L166

*printed with  
author search*

=> file embase

FILE 'EMBASE' ENTERED AT 12:26:23 ON 26 JAN 2006  
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FILE COVERS 1974 TO 19 Jan 2006 (20060119/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate  
 substance identification.

=> d que nos L114

L3 1 SEA FILE=REGISTRY ABB=ON PLU=ON 9,11-OCTADECADIENOIC ACID/CN  
 L4 1 SEA FILE=REGISTRY ABB=ON PLU=ON 10,12-OCTADECADIENOIC  
 ACID/CN  
 L6 STR  
 L7 88 SEA FILE=REGISTRY FAM FUL L6  
 L8 STR  
 L9 29 SEA FILE=REGISTRY FAM FUL L8  
 L79 5 SEA FILE=EMBASE ABB=ON PLU=ON L7  
 L86 SEL PLU=ON L3 1- CHEM : 11 TERMS  
 L87 852 SEA FILE=EMBASE ABB=ON PLU=ON L86  
 L88 0 SEA FILE=EMBASE ABB=ON PLU=ON L9  
 L90 SEL PLU=ON L4 1- CHEM : 2 TERMS  
 L91 38 SEA FILE=EMBASE ABB=ON PLU=ON L90  
 L95 852 SEA FILE=EMBASE ABB=ON PLU=ON L79 OR L87  
 L96 38 SEA FILE=EMBASE ABB=ON PLU=ON L88 OR L91  
 L103 4233 SEA FILE=EMBASE ABB=ON PLU=ON IMMUNE COMPLEX DISEASE+NT/CT  
 L104 52 SEA FILE=EMBASE ABB=ON PLU=ON TYPE III HYPERSENSITIV?  
 L105 95 SEA FILE=EMBASE ABB=ON PLU=ON HYPERSENSITIV? (3A) (TYPE III  
 OR TYPE 3)  
 L107 991 SEA FILE=EMBASE ABB=ON PLU=ON ARTHUS  
 L108 1332 SEA FILE=EMBASE ABB=ON PLU=ON SERUM SICKNESS



L109 58197 SEA FILE=EMBASE ABB=ON PLU=ON RHEUMATOID ARTHRITIS+NT/CT  
 L110 4944 SEA FILE=EMBASE ABB=ON PLU=ON ANTIRHEUMATIC AGENT/CT  
 L112 18906 SEA FILE=EMBASE ABB=ON PLU=ON GLOMERULONEPHRITIS+NT/CT  
 L113 26386 SEA FILE=EMBASE ABB=ON PLU=ON SYSTEMIC LUPUS ERYTHEMATOSUS/CT

L114 4 SEA FILE=EMBASE ABB=ON PLU=ON (L95 OR L96) AND ((L103 OR  
~~L104 OR L105) OR (L107 OR L108 OR L109 OR L110) OR (L112 OR~~  
~~L113))~~

=> d que nos L127

L100 40 SEA FILE=EMBASE ABB=ON PLU=ON LINOLEIC ACID DERIVATIVE/CT  
 L103 4233 SEA FILE=EMBASE ABB=ON PLU=ON IMMUNE COMPLEX DISEASE+NT/CT  
 L104 52 SEA FILE=EMBASE ABB=ON PLU=ON TYPE III HYPERSENSITIV?  
 L105 95 SEA FILE=EMBASE ABB=ON PLU=ON HYPERSENSITIV? (3A) (TYPE III  
 OR TYPE 3)  
 L107 991 SEA FILE=EMBASE ABB=ON PLU=ON ARTHUS  
 L108 1332 SEA FILE=EMBASE ABB=ON PLU=ON SERUM SICKNESS  
 L109 58197 SEA FILE=EMBASE ABB=ON PLU=ON RHEUMATOID ARTHRITIS+NT/CT  
 L110 4944 SEA FILE=EMBASE ABB=ON PLU=ON ANTIRHEUMATIC AGENT/CT  
 L112 18906 SEA FILE=EMBASE ABB=ON PLU=ON GLOMERULONEPHRITIS+NT/CT  
 L113 26386 SEA FILE=EMBASE ABB=ON PLU=ON SYSTEMIC LUPUS ERYTHEMATOSUS/CT

L127 0 SEA FILE=EMBASE ABB=ON PLU=ON L100 AND ((L103 OR L104 OR  
~~L105) OR (L107 OR L108 OR L109 OR L110) OR (L112 OR L113))~~

=> d que nos L121

L99 8 SEA FILE=EMBASE ABB=ON PLU=ON LINOLEIC ACID CONJUGATE/CT  
 L103 4233 SEA FILE=EMBASE ABB=ON PLU=ON IMMUNE COMPLEX DISEASE+NT/CT  
 L104 52 SEA FILE=EMBASE ABB=ON PLU=ON TYPE III HYPERSENSITIV?  
 L105 95 SEA FILE=EMBASE ABB=ON PLU=ON HYPERSENSITIV? (3A) (TYPE III  
 OR TYPE 3)  
 L107 991 SEA FILE=EMBASE ABB=ON PLU=ON ARTHUS  
 L108 1332 SEA FILE=EMBASE ABB=ON PLU=ON SERUM SICKNESS  
 L109 58197 SEA FILE=EMBASE ABB=ON PLU=ON RHEUMATOID ARTHRITIS+NT/CT  
 L110 4944 SEA FILE=EMBASE ABB=ON PLU=ON ANTIRHEUMATIC AGENT/CT  
 L112 18906 SEA FILE=EMBASE ABB=ON PLU=ON GLOMERULONEPHRITIS+NT/CT  
 L113 26386 SEA FILE=EMBASE ABB=ON PLU=ON SYSTEMIC LUPUS ERYTHEMATOSUS/CT

L121 0 SEA FILE=EMBASE ABB=ON PLU=ON L99 AND ((L103 OR L104 OR  
~~L105) OR (L107 OR L108 OR L109 OR L110) OR (L112 OR L113))~~

=> s (L114 or L127 or L121) not L167

L172 3 (L114 OR L127 OR L121) NOT L167

*printed with  
author search*

=> file biosis

FILE 'BIOSIS' ENTERED AT 12:26:27 ON 26 JAN 2006  
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FILE COVERS 1969 TO DATE.  
 CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT  
 FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 25 January 2006 (20060125/ED)

=> d que nos L159

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L6          STR
L7          88 SEA FILE=REGISTRY FAM FUL L6
L8          STR
L9          29 SEA FILE=REGISTRY FAM FUL L8
L137        1159 SEA FILE=BIOSIS ABB=ON PLU=ON L7
L138        SEL PLU=ON L7 1- CHEM :      143 TERMS
L139        2260 SEA FILE=BIOSIS ABB=ON PLU=ON L138
L140        59 SEA FILE=BIOSIS ABB=ON PLU=ON L9
L141        SEL PLU=ON L9 1- CHEM :      57 TERMS
L142        220 SEA FILE=BIOSIS ABB=ON PLU=ON L141
L147        2260 SEA FILE=BIOSIS ABB=ON PLU=ON L137 OR L139
L148        220 SEA FILE=BIOSIS ABB=ON PLU=ON L140 OR L142
L150        78 SEA FILE=BIOSIS ABB=ON PLU=ON HYPERSENSITIV? (3A) (TYPE III
          OR TYPE 3)
L152        53773 SEA FILE=BIOSIS ABB=ON PLU=ON RHEUMATOID ARTHRITIS
L153        1059 SEA FILE=BIOSIS ABB=ON PLU=ON ARTHUS
L154        806 SEA FILE=BIOSIS ABB=ON PLU=ON SERUM SICKN?
L155        2279 SEA FILE=BIOSIS ABB=ON PLU=ON ANTIRHEUMAT?
L156        1051 SEA FILE=BIOSIS ABB=ON PLU=ON IMMUNE COMPLEX DIS?
L157        17925 SEA FILE=BIOSIS ABB=ON PLU=ON GLOMERULONEPHRIT?
L158        31618 SEA FILE=BIOSIS ABB=ON PLU=ON LUPUS ERYTHEMAT? (3A) SYSTEMIC

L159        9 SEA FILE=BIOSIS ABB=ON PLU=ON (L147 OR L148) AND (L150 OR
          (L152 OR L153 OR L154 OR L155 OR L156 OR L157 OR L158))

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=> s L159 not L168

L173 6 L159 NOT L168

*pruned with author search*

=> => dup rem L170 L171 L172 L173

FILE 'HCAPLUS' ENTERED AT 12:27:44 ON 26 JAN 2006  
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 COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 12:27:44 ON 26 JAN 2006

FILE 'EMBASE' ENTERED AT 12:27:44 ON 26 JAN 2006  
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FILE 'BIOSIS' ENTERED AT 12:27:44 ON 26 JAN 2006  
 Copyright (c) 2006 The Thomson Corporation

PROCESSING COMPLETED FOR L170  
 PROCESSING COMPLETED FOR L171  
 PROCESSING COMPLETED FOR L172  
 PROCESSING COMPLETED FOR L173

L174 13 DUP REM L170 L171 L172 L173 (6 DUPLICATES REMOVED)  
 ANSWERS '1-5' FROM FILE HCAPLUS  
 ANSWERS '6-9' FROM FILE MEDLINE  
 ANSWERS '10-11' FROM FILE EMBASE  
 ANSWERS '12-13' FROM FILE BIOSIS

=> d ibib abs hitind hitstr L174 1-5; d iall L174 6-13

L174 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 1990:511825 HCAPLUS  
 DOCUMENT NUMBER: 113:111825  
 TITLE: Measurement of conjugated diene lipids by derivative spectroscopy in heptane extracts of plasma  
 AUTHOR(S): Situnayake, R. D.; Crump, B. J.; Zezulka, A. V.; Davis, M.; McConkey, B.; Thurnham, D. I.  
 CORPORATE SOURCE: Dep. Med., Dudley Road Hosp., Birmingham, B18 7QH, UK  
 SOURCE: Annals of Clinical Biochemistry (1990), 27(3), 258-66  
 CODEN: ACBOBU; ISSN: 0004-5632  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB A series of expts. are described which show that 2nd derivative spectroscopy can be used to quantify conjugated lipid dienes as markers of lipid peroxidn. in heptane exts. of plasma from patients with rheumatoid arthritis, osteoarthritis, and healthy controls. Results obtained by this method gave reasonable agreement with those derived from the measurement of simple absorbance in chloroform/methanol exts. Two min. were observed in the derivative spectrum of plasma lipid exts. These min. occurred at 233 and 241 nm and corresponded to absorbance maximum in the conventional UV spectrum. Using a combination of phospholipase hydrolysis, reversed phase HPLC and 2nd deriv spectroscopy, it was confirmed that these 2 min. can be attributed to a single fatty acid (9-cis-, 11-trans-linoleic acid) shown previously to account for >90% of diene conjugation in human plasma samples. When the biol. isomer 9-cis-, 11-trans-linoleic acid was separated by reversed-phase HPLC from the mixture of other plasma phospholipid-2-esterified fatty acids a change was observed in derivative spectroscopy min.

from

233 and 241 nm to 228 and 237 nm. Min. at the latter 2 wavelengths were also seen with pure preps. of the Paint Research Isomer (9-trans-, 11-trans-linoleic acid) which eluted later than biol. 9-cis-, 11-trans-linoleic acid using reversed phase HPLC, suggesting that the absorption spectra of these pure cis-, trans and trans, trans dienes are similar but can be altered by the presence of other fatty acids in the extract

CC 9-5 (Biochemical Methods)

IT **Arthritis**

(rheumatoid, conjugated diene determination in blood heptane exts. in humans in)

IT 57-88-5, Cholest-5-en-3-ol (3 $\beta$ )-, analysis 60-33-3,  
 9,12-Octadecadienoic acid (Z,Z)-, analysis 463-40-1 506-32-1  
 544-71-8 2540-56-9

RL: ANT (Analyte); ANST (Analytical study)

(determination of, in blood plasma heptane exts. by spectroscopy)

IT 60-33-3, 9,12-Octadecadienoic acid (Z,Z)-, analysis  
 544-71-8 2540-56-9

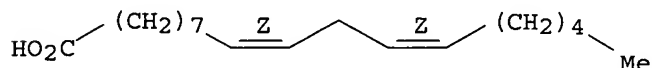
RL: ANT (Analyte); ANST (Analytical study)

(determination of, in blood plasma heptane exts. by spectroscopy)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

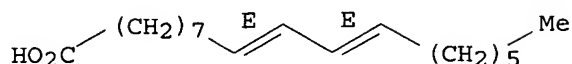
Double bond geometry as shown.



RN 544-71-8 HCAPLUS

CN 9,11-Octadecadienoic acid, (9E,11E)- (9CI) (CA INDEX NAME)

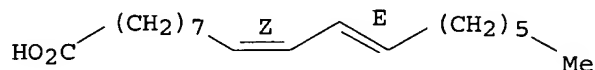
Double bond geometry as shown.



RN 2540-56-9 HCAPLUS

CN 9,11-Octadecadienoic acid, (9Z,11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L174 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1239024 HCAPLUS

DOCUMENT NUMBER: 144:601

TITLE: Nitrated lipids and methods of making and using thereof

INVENTOR(S): Freeman, Bruce A.; Schopfer, Francisco; O'Donnell, Valerie; Baker, Paul; Chen, Eugene; Branchaud, Bruce

PATENT ASSIGNEE(S): Uab Research Foundation, USA

SOURCE: PCT Int. Appl., 169 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005110396	A2	20051124	WO 2005-US14305	20050426
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2004-566005P P 20040428

AB Described herein are nitrated lipids and methods of making and using the nitrated lipids.

IC ICM A61K031-21

CC 1-7 (Pharmacology)

IT Addison's disease

Allergy

Allergy inhibitors

Alzheimer's disease

Anti-Alzheimer's agents

Anti-inflammatory agents

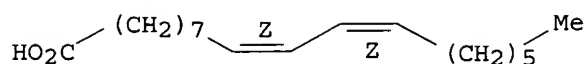
Antiarthritics

Antiasthmatics

Antidiabetic agents  
 Antihypertensives  
**Antirheumatic agents**  
 Antitumor agents  
 Arthritis  
 Asthma  
 Atherosclerosis  
 Cardiovascular agents  
 Diabetes mellitus  
 Eczema  
 Erythema  
 Gene expression profiles  
 Graves' disease  
 Human  
 Hypertension  
 Inflammation  
 Macrophage  
 Monocyte  
 Multiple sclerosis  
 Myasthenia gravis  
 Neoplasm  
 Nervous system agents  
 Neutrophil  
 Platelet aggregation inhibitors  
 Preeclampsia  
 Pruritus  
 Psoriasis  
**Rheumatoid arthritis**  
 Sick cell anemia  
 Sjogren's syndrome  
 Transplant and Transplantation  
 Wart

(nitrated lipids for treatment of inflammation disease)  
 IT **Lupus erythematosus**  
 (systemic; nitrated lipids for treatment of inflammation disease)  
 IT **544-70-7** 5300-03-8 **7307-45-1** 10102-43-9, Nitric  
 oxide, biological studies 17364-16-8 19420-56-5 22978-25-2, GW9662  
 74772-77-3, Ciglitazone 87893-55-8, 15-Deoxy- $\Delta^{12,14}$ -PGJ2  
 122320-73-4, Rosiglitazone 129194-27-0  
 RL: PAC (Pharmacological activity); BIOL (Biological study)  
 (nitrated lipids for treatment of inflammation disease)  
 IT **60-33-3D**, Linoleic acid, nitrated reaction products  
 RL: PAC (Pharmacological activity); THU (Therapeutic  
 use); BIOL (Biological study); USES (Uses)  
 (nitrated lipids for treatment of inflammation disease)  
 IT 57-88-5, Cholesterol, biological studies **60-33-3**, Linoleic acid,  
 biological studies 112-80-1, Oleic acid, biological studies 463-40-1,  
 Linolenic acid 506-32-1, Arachidonic acid 604-33-1, Cholesterol  
 linoleate 25167-62-8, Docosahexaenoic acid 869858-77-5 869858-78-6  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (nitrated lipids for treatment of inflammation disease)  
 IT **544-70-7 7307-45-1**  
 RL: PAC (Pharmacological activity); BIOL (Biological study)  
 (nitrated lipids for treatment of inflammation disease)  
 RN 544-70-7 HCAPLUS  
 CN 9,11-Octadecadienoic acid, (9Z,11Z)- (9CI) (CA INDEX NAME)

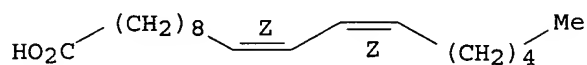
Double bond geometry as shown.



RN 7307-45-1 HCAPLUS

CN 10,12-Octadecadienoic acid, (10Z,12Z) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT 60-33-3D, Linoleic acid, nitrated reaction products

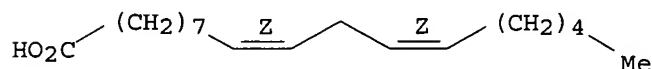
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(nitrated lipids for treatment of inflammation disease)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT 60-33-3, Linoleic acid, biological studies

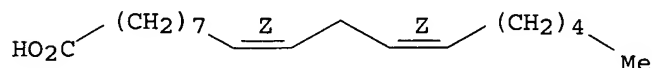
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(nitrated lipids for treatment of inflammation disease)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L174 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1218595 HCAPLUS

DOCUMENT NUMBER: 143:466211

TITLE: CLA-enriched milk fat and uses thereof

INVENTOR(S): Kanwar, Rupinder Kaur; Krissansen, Geoffrey Wayne; Black, Peter Nigel; Macgibbon, Alastair Kenneth Hugh

PATENT ASSIGNEE(S): N. Z.

SOURCE: PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005107736	A1	20051117	WO 2005-NZ96	20050511
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ,  
 LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA,  
 NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,  
 SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,  
 ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,  
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
 MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

NZ 2004-532872

A 20040511

AB The present invention relates to use of 9-cis,11-trans isomer of conjugated linoleic acid (CLA) or a salt, ester or precursor thereof or CLA-enriched milk fat for treating or preventing conditions such as those associated with one or more of leukocyte infiltration, eosinophilia, IgE secretion, airway remodelling, bronchoconstriction and mucus hypersecretion. The invention also relates to a pharmaceutical composition comprising CLA-enriched milk fat. Thus, the CLA-enriched milk fat diet of mice suppressed the increase in OVA-specific IgE by 30 and 55%, and OVA-specific IgG1 by 45 and 48%, resp., compared to levels in the sera of mice fed the control diet, and the normal milk fat diet.

IC ICM A61K031-201

ICS A61P011-06; A61P037-08

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 17

IT Allergy

Asthma

Beverages

Cystic fibrosis

Eosinophilia

Feeding experiment

Food

Food additives

Hay fever

Infection

**Rheumatoid arthritis**

Sarcoidosis

Urticaria

(conjugated linoleic acid enriched milk fat compns. for treatment of inflammation and immune disorder)

IT 2420-56-6, 10-trans, 12-cis-Linoleic acid 2540-56-9,

9-cis,11-trans-Linoleic acid 2540-56-9D, 9-cis,11-trans-Linoleic acid, esters 277744-17-9 278181-54-7

RL: ADV (Adverse effect; including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(conjugated linoleic acid enriched milk fat compns. for treatment of inflammation and immune disorder)

IT 693-72-1, Vaccenic acid

RL: ADV (Adverse effect; including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study);

USES (Uses)

(precursor; conjugated linoleic acid enriched milk fat compns. for treatment of inflammation and immune disorder)

IT 2420-56-6, 10-trans, 12-cis-Linoleic acid 2540-56-9,

9-cis,11-trans-Linoleic acid 2540-56-9D, 9-cis,11-trans-Linoleic acid, esters

RL: ADV (Adverse effect; including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

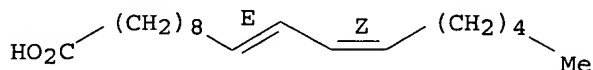
(conjugated linoleic acid enriched milk fat compns. for treatment of

inflammation and immune disorder)

RN 2420-56-6 HCAPLUS

CN 10,12-Octadecadienoic acid, (10E,12Z) - (9CI) (CA INDEX NAME)

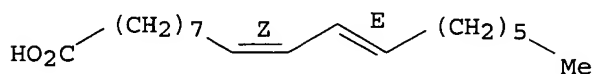
Double bond geometry as shown.



RN 2540-56-9 HCAPLUS

CN 9,11-Octadecadienoic acid, (9Z,11E) - (9CI) (CA INDEX NAME)

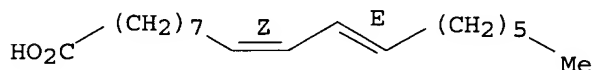
Double bond geometry as shown.



RN 2540-56-9 HCAPLUS

CN 9,11-Octadecadienoic acid, (9Z,11E) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IT 693-72-1, Vaccenic acid

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study);

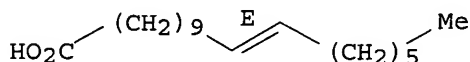
USES (Uses)

(precursor; conjugated linoleic acid enriched milk fat compns. for treatment of inflammation and immune disorder)

RN 693-72-1 HCAPLUS

CN 11-Octadecenoic acid, (11E) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L174 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1073991 HCAPLUS

DOCUMENT NUMBER: 143:367082

TITLE: Preparation of gallic acid conjugated linoleic acid fatty ester, method for their preparation, and composition containing them

INVENTOR(S): Byun, Myung-Woo; Jo, Cho-Run

PATENT ASSIGNEE(S): Korea Atomic Energy Research Institute, S. Korea

SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.

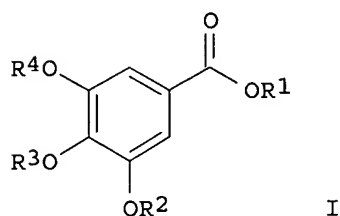
CODEN: JKXXAF

DOCUMENT TYPE: Patent



LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005272471	A2	20051006	JP 2005-88064	20050325
PRIORITY APPLN. INFO.:			KR 2004-20508	A 20040325
			KR 2005-15022	A 20050223
OTHER SOURCE(S):		CASREACT 143:367082; MARPAT 143:367082		
GI				



AB The title gallic acid esters (I) [R1, R4 = H, conjugated linoleic acid, in particular 9-cis,11-trans-octadecadienoic acid, 9-trans,11-cis-octadecadienoic acid, 10-cis,12-trans-octadecadienoic acid, or 10-trans,12-cis-octadecadienoic acid, provided that a case where R1-R4 = H is excluded] are prepared by (1) dissolving gallic acid and conjugated linoleic acid in a 1:3 molar ratio in an organic solvent, adding base, and allowing the resulting mixture to be reacted, and (2) adding Et acetate to the resulting reaction mixture, allowing the mixture to undergo phase separation, recovering the upper layer, and concentrating it. An antioxidant composition, antibacterial and antifungicidal composition, antiinflammatory composition, skin-whitening composition containing gallic acid conjugated linoleic acid fatty esters I are also disclosed. The gallic acid esters I possess excellent electron-donating power, antioxidant activity with low peroxidn. value and low deterioration tendency, excellent antibacterial and fungicidal activity, antiinflammatory activity due to inhibitory activity against COX-1 and COX-2, and skin-whitening activity due to high tyrosinase-inhibitory activity. Thus, a 1:3 molar ratio of gallic acid and linoleic acid (80% purity) was dissolved in THF, treated with Et3N and 1,3-dicyclohexylcarbodiimide, stirred at room temperature for 24 h, washed twice with distilled water, and treated with Et acetate, followed by phase separation, recovering the upper phase, and concentration, to give gallic acid linoleic ester (II). II in vitro inhibited the growth of fungi (e.g. Aspergillus flavus), lactic bacteria (leuconostoc mesenteroides), and Listeria ivanova (bacterium).

IC ICM C07C067-08  
 ICS A61K007-00; A61K007-48; A61K031-235; A61P019-02; A61P029-00; C07C069-92; C09K015-08; A23L001-30; A23L003-3508

CC 25-18 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)  
 Section cross-reference(s): 1, 17, 62

IT Anti-inflammatory agents  
 Antiarthritics

Antibacterial agents

Antioxidants

**Antirheumatic agents**

Esterification

Food additives

Fungicides

Health food

Inflammation

Mycosis

Osteoarthritis

**Rheumatoid arthritis**

(preparation of gallic acid conjugated linoleic acid fatty ester and pharmaceutical or skin-whitening cosmetic composition containing them)

IT 866409-75-8P

RL: COS (Cosmetic use); FFD (Food or feed use); **PAC (Pharmacological activity)**; SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of gallic acid conjugated linoleic acid fatty ester and pharmaceutical or skin-whitening cosmetic composition containing them)

IT 60-33-3, Linoleic acid, reactions 149-91-7, Gallic acid, reactions 872-23-1, 9-trans,11-cis-Octadecadienoic acid

2420-44-2, 10-cis,12-trans-Octadecadienoic acid 2420-56-6

, 10-trans,12-cis-Octadecadienoic acid 2540-56-9,

9-cis,11-trans-Octadecadienoic acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of gallic acid conjugated linoleic acid fatty ester and pharmaceutical or skin-whitening cosmetic composition containing them)

IT 866409-75-8P

RL: COS (Cosmetic use); FFD (Food or feed use); **PAC (Pharmacological activity)**; SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of gallic acid conjugated linoleic acid fatty ester and pharmaceutical or skin-whitening cosmetic composition containing them)

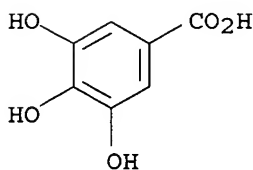
RN 866409-75-8 HCAPLUS

CN Benzoic acid, 3,4,5-trihydroxy-, (9Z,12Z)-9,12-octadecadienoate (9CI) (CA INDEX NAME)

CM 1

CRN 149-91-7

CMF C7 H6 O5

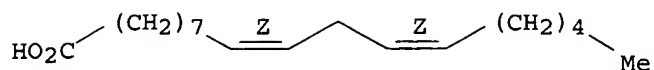


CM 2

CRN 60-33-3

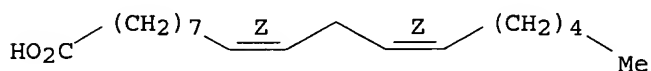
CMF C18 H32 O2

Double bond geometry as shown.



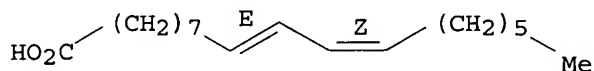
IT 60-33-3, Linoleic acid, reactions 872-23-1,  
 9-trans,11-cis-Octadecadienoic acid 2420-44-2,  
 10-cis,12-trans-Octadecadienoic acid 2420-56-6,  
 10-trans,12-cis-Octadecadienoic acid 2540-56-9,  
 9-cis,11-trans-Octadecadienoic acid  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of gallic acid conjugated linoleic acid fatty ester and  
 pharmaceutical or skin-whitening cosmetic composition containing them)  
 RN 60-33-3 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



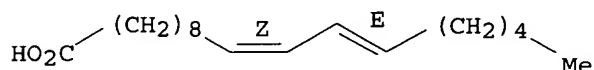
RN 872-23-1 HCAPLUS  
 CN 9,11-Octadecadienoic acid, (9E,11Z) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



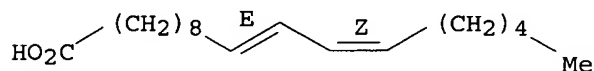
RN 2420-44-2 HCAPLUS  
 CN 10,12-Octadecadienoic acid, (10Z,12E) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



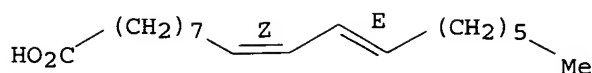
RN 2420-56-6 HCAPLUS  
 CN 10,12-Octadecadienoic acid, (10E,12Z) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 2540-56-9 HCAPLUS  
 CN 9,11-Octadecadienoic acid, (9Z,11E) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L174 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:466707 HCAPLUS

DOCUMENT NUMBER: 137:37683

TITLE: Method of potentiating the action of  
2-methoxyoestradiol, statins and c-peptide of  
proinsulin

INVENTOR(S): Das, Undurti Narasimha

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 15 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002077317	A1	20020620	US 2000-737671	20001215
PRIORITY APPLN. INFO.:			US 2000-737671	20001215

AB Disclosed is a method of stabilizing and potentiating the actions of 2-methoxyoestradiol, statins, H2 blockers, and C-peptide of proinsulin which have modifying influence on angiogenesis and inhibiting the growth of tumor cells, peptic ulcer disease, diabetes mellitus and its complications, and Alzheimer's disease as applicable by using in coupling conjugation certain polyunsatd. fatty acids (PUFAs) chosen from linoleic acid,  $\gamma$ -linolenic acid, dihomogamma-linolenic acid, arachidonic acid,  $\alpha$ -linolenic acid, eicosapentaenoic acid, docosahexaenoic acid, cis-parinaric acid or conjugated linoleic acid in predetd. quantities. Uncontrolled angiogenic activity and tumor growth can be inhibited by the selective use of a mixture of PUFAs with anti-angiogenic substances used selectively, and optionally in conjunction with predetd. anti-cancer drugs. A preferred method of administration of the mixture to treat a tumor is intra-arterial administration into an artery which provides the main blood supply for the tumor. The method will also be useful in the treatment of peptic ulcer disease, diabetes mellitus and its complications and Alzheimer's disease.

IC ICM A61K038-28  
ICS A61K039-395; A61K031-56; A61K031-40; A61K031-35

INCL 514171000

CC 63-6 (Pharmaceuticals)  
Section cross-reference(s): 1

IT Angiogenesis inhibitors  
Antacids  
Antidiabetic agents  
**Antirheumatic agents**  
Antitumor agents  
Antiulcer agents  
Human  
Radiotherapy  
(polyunsatd. fatty acids for potentiating actions of anigogenesis inhibitors and antiulcer agents and antidiabetics and mental disease drugs)

IT **Lupus erythematosus**

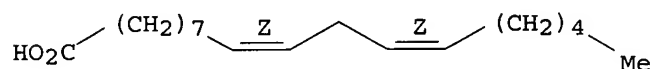
(systemic, treatment of; polyunsatd. fatty acids for potentiating actions of anigogenesis inhibitors and antiulcer agents and antidiabetics and mental disease drugs)

IT 60-33-3, Linoleic acid, biological studies 463-40-1,  
 $\alpha$ -Linolenic acid 506-26-3,  $\gamma$ -Linolenic acid 506-32-1,  
 Arachidonic acid 593-38-4, cis-Parinaric acid 1783-84-2,  
 Dihomo- $\gamma$ -linolenic acid 1839-11-8, Conjugated linoleic  
 acid 6217-54-5, Docosaheptaenoic acid 10417-94-4, Eicosapentaenoic acid  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (polyunsatd. fatty acids for potentiating actions of anigogenesis  
 inhibitors and antiulcer agents and antidiabetics and mental disease  
 drugs)

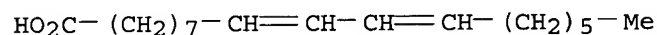
IT 60-33-3, Linoleic acid, biological studies 1839-11-8,  
 Conjugated linoleic acid  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (polyunsatd. fatty acids for potentiating actions of anigogenesis  
 inhibitors and antiulcer agents and antidiabetics and mental disease  
 drugs)

RN 60-33-3 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 1839-11-8 HCAPLUS  
 CN 9,11-Octadecadienoic acid (6CI, 8CI, 9CI) (CA INDEX NAME)



L174 ANSWER 6 OF 13 MEDLINE on STN DUPLICATE 1  
 ACCESSION NUMBER: 1999132735 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 9933972  
 TITLE: Increased levels of lipid oxidation products in  
 rheumatically destructed bones of patients suffering from  
 rheumatoid arthritis.  
 AUTHOR: Jira W; Spiteller G; Richter A  
 CORPORATE SOURCE: Lehrstuhl fur Organische Chemie I, Universitat Bayreuth,  
 Germany.  
 SOURCE: Zeitschrift fur Naturforschung. C, Journal of biosciences,  
 (1998 Nov-Dec) 53 (11-12) 1061-71.  
 Journal code: 8912155. ISSN: 0341-0382.  
 PUB. COUNTRY: GERMANY: Germany, Federal Republic of  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199902  
 ENTRY DATE: Entered STN: 19990316  
 Last Updated on STN: 19990316  
 Entered Medline: 19990226  
 ABSTRACT:

The new indicator for lipid peroxidation (LPO) processes--9-hydroxy-10,12-octadecadienoic acid (9-HODE)--was used to investigate, whether LPO processes are increased in destructed bone material of patients suffering from rheumatoid arthritis (RA) in comparison to surrounded non destructed bone material. The HODE content in destructed bones exceeded that of non destructed ones of the same patient for a factor of about 3. In addition similar increases in leukotoxines and epoxy oleic acid in the destructed bone material were observed, indicating an increase of LPO processes in affected bone parts of patients.

CONTROLLED TERM: \*Arthritis, Rheumatoid: ME, metabolism

\*Bacterial Proteins

\*Bone and Bones: ME, metabolism

Bone and Bones: PA, pathology

Exotoxins: ME, metabolism

Fatty Acids: ME, metabolism

Hemolysins: ME, metabolism

Humans

\*Lipid Peroxidation

Reference Standards

Research Support, Non-U.S. Gov't

Spectrum Analysis, Mass: MT, methods

CHEMICAL NAME: 0 (Bacterial Proteins); 0 (Exotoxins); 0 (Fatty Acids); 0 (Hemolysins); 0 (lktA protein, bacteria)

L174 ANSWER 7 OF 13

MEDLINE on STN

DUPLICATE 2

ACCESSION NUMBER: 97362884 MEDLINE

DOCUMENT NUMBER: PubMed ID: 9219348

TITLE: Increased levels of lipid oxidation products in low density lipoproteins of patients suffering from rheumatoid arthritis.

AUTHOR: Jira W; Spiteller G; Richter A

CORPORATE SOURCE: Lehrstuhl fur Organische Chemie I, Universitat Bayreuth, NW I, Germany.

SOURCE: Chemistry and physics of lipids, (1997 May 30) 87 (1) 81-9. Journal code: 0067206. ISSN: 0009-3084.

PUB. COUNTRY: Ireland

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199708

ENTRY DATE: Entered STN: 19970813

Last Updated on STN: 19980206

Entered Medline: 19970806

ABSTRACT:

9-Hydroxy-10,12-octadecadienoic acid

(9-HODE) and 13-hydroxy-9,11-octadecadienoic

\*\*\*acid\*\*\* (13-HODE) are accumulated in the low density lipoproteins of patients suffering from rheumatoid arthritis for a factor of 20-50 compared to healthy individuals of the same age. Both acids, derived by lipid peroxidation of linoleic acid, induce the release of interleukin 1 beta. The latter induces bone degeneration. The genesis of 9- and 13-HODE seems therefore to be an important factor in the development and progression of rheuma; in addition 9-HODE was reported to be a stimulus of inflammation, comparable to leukotrienes.

CONTROLLED TERM: Check Tags: Female; Male

Adult

Aged

Aldehydes: BL, blood

\*Arthritis, Rheumatoid: BL, blood

Chromatography, Gas

Humans  
 Linoleic Acid  
 Linoleic Acids: BL, blood  
 \*Linoleic Acids, Conjugated  
 \*Lipid Peroxidation  
 Lipid Peroxides: BL, blood  
 \*Lipoproteins, LDL: BL, blood  
 Lipoproteins, LDL: CH, chemistry  
 Middle Aged  
 Spectrum Analysis, Mass

CAS REGISTRY NO.: 15514-85-9 (9-hydroxy-10,12-octadecadienoic acid)  
 ; 17046-02-5 (2-hydroxyheptanal); 2197-37-7 (Linoleic  
 Acid); 5204-88-6 (13-hydroxy-9,11-octadecadienoic  
 acid)

CHEMICAL NAME: 0 (Aldehydes); 0 (Linoleic Acids); 0 (Linoleic Acids,  
 Conjugated); 0 (Lipid Peroxides); 0 (Lipoproteins, LDL)

L174 ANSWER 8 OF 13 MEDLINE on STN DUPLICATE 3  
 ACCESSION NUMBER: 97252343 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 9097912  
 TITLE: Calorie restriction decreases platelet-derived growth  
 factor (PDGF)-A and thrombin receptor mRNA expression in  
 autoimmune murine lupus nephritis.  
 AUTHOR: Troyer D A; Chandrasekar B; Barnes J L; Fernandes G  
 CORPORATE SOURCE: Pathology, The University of Texas Health Science Centre,  
 San Antonio 78284-7874, USA.  
 CONTRACT NUMBER: RO1-AG 10531 (NIA)  
 SOURCE: Clinical and experimental immunology, (1997 Apr) 108 (1)  
 58-62.  
 Journal code: 0057202. ISSN: 0009-9104.  
 PUB. COUNTRY: ENGLAND: United Kingdom  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199705  
 ENTRY DATE: Entered STN: 19970523  
 Last Updated on STN: 20000303  
 Entered Medline: 19970513

## ABSTRACT:

Calorie restriction (CR) and supplementation with fish oil (FO) are known to increase the life span and diminish histological evidence of glomerulonephritis in lupus prone (NZB x NZW)F1 (B/W) mice. Cellular proliferation is an important pathological element in the development of lupus nephritis, and we have examined the expression of thrombin receptor (TR) and the mitogenic agents PDGF-A and -B. Weanling B/W mice were fed either ad libitum or a calorie restricted (CR; 40% less calories than ad libitum) diet supplemented with either 5% (w/w) corn oil (CO) or FO. CR animals consumed 2.7-3.0 g of wet food per day versus 4.5-5.0 g for the ad libitum animals. Renal RNA was extracted from young (3.5-4.0 months of age) and old (8-10 months of age) mice. Densitometric analysis (reference gene GAPDH) of blots from Northern (PDGF-A and -B) and ribonuclease protection assays (TR) produced the following data: (i) in young mice no signal was detected for PDGF-A, -B and TR in all four groups, while the signals were readily detectable in old mice; (ii) in old mice low and similar levels of PDGF-B were detected, and neither CR nor the source of lipid altered its expression; (iii) CR significantly inhibited PDGF-A and TR expression in both CO (ad libitum versus CR; PDGF-A, 3.25-fold,  $P < 0.025$ ; \*\*\*TR\*\*\*, 3.7-fold,  $P < 0.01$ ) and FO (ad libitum versus CR; PDGF-A, 4.56-fold,  $P < 0.01$ ; TR, 3.6-fold,  $P < 0.025$ ) groups; (iv) although FO (versus CO) produced a trend towards decreased expression, results were not statistically significant. We conclude that suppression of renal

disease in lupus-prone mice by CR is accompanied by decreased expression of PDGF-A and the thrombin receptor.

CONTROLLED TERM: Check Tags: Female  
Animals  
Autoimmunity: IM, immunology  
Disease Models, Animal  
\*Energy Intake  
Gene Expression  
\*Lupus Nephritis: IM, immunology  
Lupus Nephritis: ME, metabolism  
Mice  
Platelet-Derived Growth Factor: GE, genetics  
\*Platelet-Derived Growth Factor: ME, metabolism  
Proto-Oncogene Proteins: GE, genetics  
Proto-Oncogene Proteins c-sis  
RNA, Messenger  
Receptors, Thrombin: GE, genetics  
\*Receptors, Thrombin: ME, metabolism  
Research Support, Non-U.S. Gov't  
Research Support, U.S. Gov't, P.H.S.  
CHEMICAL NAME: 0 (Platelet-Derived Growth Factor); 0 (Proto-Oncogene Proteins); 0 (Proto-Oncogene Proteins c-sis); 0 (RNA, Messenger); 0 (Receptors, Thrombin); 0 (platelet-derived growth factor A)

L174 ANSWER 9 OF 13 MEDLINE on STN  
ACCESSION NUMBER: 2000132023 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 10667371  
TITLE: Dramatic increase of linoleic acid peroxidation products by aging, atherosclerosis, and rheumatoid arthritis.  
AUTHOR: Jira W; Spiteller G  
CORPORATE SOURCE: Department of Organic Chemistry I, University of Bayreuth.  
SOURCE: Advances in experimental medicine and biology, (1999) 469 479-83.  
Journal code: 0121103. ISSN: 0065-2598.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200003  
ENTRY DATE: Entered STN: 20000330  
Last Updated on STN: 20000330  
Entered Medline: 20000323  
CONTROLLED TERM: Adult  
Aged  
Aged, 80 and over  
\*Aging: BL, blood  
\*Arteriosclerosis: BL, blood  
\*Arthritis, Rheumatoid: BL, blood  
Humans  
\*Linoleic Acid: BL, blood  
Linoleic Acids: BL, blood  
\*Linoleic Acids, Conjugated  
Lipid Peroxidation  
Lipoproteins, LDL: BL, blood  
Middle Aged  
CAS REGISTRY NO.: 15514-85-9 (9-hydroxy-10,12-octadecadienoic acid)  
; 2197-37-7 (Linoleic Acid); 5204-88-6  
(13-hydroxy-9,11-octadecadienoic acid)  
CHEMICAL NAME: 0 (Linoleic Acids); 0 (Linoleic Acids, Conjugated); 0



(Lipoproteins, LDL)

L174 ANSWER 10 OF 13 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2004521843 EMBASE  
TITLE: Fatty acids: Which ones do we need?.  
AUTHOR: Mason P.  
CORPORATE SOURCE: United Kingdom  
SOURCE: Pharmaceutical Journal, (20 Nov 2004) Vol. 273, No. 7326,  
pp. 750-752.  
Refs: 17  
ISSN: 0031-6873 CODEN: PHJOAV  
COUNTRY: United Kingdom  
DOCUMENT TYPE: Journal; Note  
FILE SEGMENT: 003 Endocrinology  
008 Neurology and Neurosurgery  
017 Public Health, Social Medicine and Epidemiology  
018 Cardiovascular Diseases and Cardiovascular Surgery  
037 Drug Literature Index  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
ENTRY DATE: Entered STN: 20041228  
Last Updated on STN: 20041228

ABSTRACT: It is important to ensure that any fat consumed is of a beneficial type. More emphasis should be placed on MUFAs and n3 PUFAs to replace both SFAs and n6 PUFAs. This will help to ensure an appropriate balance of n3 to n6 PUFAs and a reduced intake of SFAs. This could help to reduce the risk of CVD and other chronic conditions with an inflammatory component. Irrespective of the type of fatty acids contained, all fats provide 9kcal (37kJ) per gram, making fat the most concentrated source of energy in the diet and a potentially significant risk factor for obesity so, although some fatty acids are essential for health, total fat intake should still be limited. Topping up on EFAs is best done through dietary measures. Usually, it is the n3 EFAs that are needed. Hence the best advice is to eat n3-rich oily fish and seeds or seed oils (see Panel 1, p749). For people who do not like eating oily fish and who are concerned about the risk of CVD, a supplement providing 1g of n3 fatty acids (from fish oils) can be suggested. If supplements are used, because of their instability, it is best to buy them in small quantities and to keep them refrigerated.

CONTROLLED TERM: Medical Descriptors:  
\*fat intake  
\*cardiovascular disease: DT, drug therapy  
\*cardiovascular disease: PC, prevention  
food composition  
risk reduction  
cardiovascular risk  
energy resource  
risk factor  
obesity  
low fat diet  
nutritional requirement  
fish  
diet supplementation  
drug stability  
drug storage  
freezing  
fatty acid analysis  
chemical structure  
cholesterol metabolism

atherosclerosis: DT, drug therapy  
 atherosclerosis: PC, prevention  
 anticoagulation  
 antiinflammatory activity  
 heart ventricle arrhythmia: DT, drug therapy  
 heart ventricle arrhythmia: PC, prevention  
 hypertension: DT, drug therapy  
     **rheumatoid arthritis: DT, drug therapy**  
 ulcerative colitis: DT, drug therapy  
 Crohn disease: DT, drug therapy  
 mood disorder: DT, drug therapy  
 depression: DT, drug therapy  
 schizophrenia: DT, drug therapy  
 dementia: DT, drug therapy  
 stroke: DT, drug therapy  
 stroke: PC, prevention  
 heart infarction: DT, drug therapy  
 heart infarction: PC, prevention  
 diabetes mellitus: DT, drug therapy  
 alcoholism: DT, drug therapy  
 nutritional deficiency: DT, drug therapy  
 malignant neoplastic disease: DT, drug therapy  
 mental function  
 human  
 note  
 Drug Descriptors:  
     \*fatty acid: DT, drug therapy  
     \*fatty acid: PD, pharmacology  
 monounsaturated fatty acid  
     omega 3 fatty acid: DT, drug therapy  
     omega 3 fatty acid: PD, pharmacology  
 saturated fatty acid  
     omega 6 fatty acid  
 essential fatty acid  
 vegetable oil  
     fish oil: DT, drug therapy  
 palmitic acid  
 stearic acid  
 decanoic acid  
 lauric acid  
 myristic acid  
 arachidic acid  
 behenic acid  
 oleic acid  
 erucic acid  
 linoleic acid  
 linolenic acid  
     gamma linolenic acid: DT, drug therapy  
 arachidonic acid  
     icosapentaenoic acid: DT, drug therapy  
     docosahexaenoic acid: DT, drug therapy  
 low density lipoprotein cholesterol: EC, endogenous  
 compound  
 high density lipoprotein cholesterol: EC, endogenous  
 compound  
 triacylglycerol: EC, endogenous compound  
 linseed oil: DT, drug therapy  
     **conjugated linoleic acid: DT, drug therapy**  
 (essential fatty acid) 11006-87-4; (fish oil) 8016-13-5;  
 (palmitic acid) 57-10-3; (stearic acid) 57-11-4, 646-29-7;

CAS REGISTRY NO.:

(decanoic acid) 334-48-5, 3398-75-2; (lauric acid) 115-05-9, 143-07-7; (myristic acid) 1715-79-3, 544-63-8; (arachidic acid) 506-30-9; (behenic acid) 112-85-6; (oleic acid) 112-80-1, 115-06-0; (erucic acid) 112-86-7; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (linolenic acid) 1955-33-5, 463-40-1; (gamma linolenic acid) 1686-12-0; (arachidonic acid) 506-32-1, 6610-25-9, 7771-44-0; (icosapentaenoic acid) 25378-27-2, 32839-30-8; (docosahexaenoic acid) 25167-62-8, 32839-18-2; (linseed oil) 8001-26-1

L174 ANSWER 11 OF 13 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2005218157 EMBASE

TITLE: Lipids and the immune response: From molecular mechanisms to clinical applications.

AUTHOR: Yaqoob P.

CORPORATE SOURCE: Dr. P. Yaqoob, Hugh Sinclair Unit of Human Nutrition, School of Food Biosciences, University of Reading, PO Box 226, Reading RG6 6AP, United Kingdom.  
p.yaqoob@reading.ac.uk

SOURCE: Current Opinion in Clinical Nutrition and Metabolic Care, (2003) Vol. 6, No. 2, pp. 133-150.  
Refs: 136

ISSN: 1363-1950 CODEN: COCMF3

COUNTRY: United States

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 022 Human Genetics  
026 Immunology, Serology and Transplantation  
029 Clinical Biochemistry  
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 20050609

Last Updated on STN: 20050609

ABSTRACT: Purpose of review: This review critically evaluates recent studies investigating the effects of fatty acids on immune and inflammatory responses in both healthy individuals and in patients with inflammatory diseases, with some reference to animal studies where relevant. It examines recent findings describing the cellular and molecular basis for the modulation of immune function by fatty acids. The newly emerging area of diet-genotype interactions will also be discussed, with specific reference to the anti-inflammatory effects of fish oil. Recent findings: Fatty acids are participants in many intracellular signalling pathways. They act as ligands for nuclear receptors regulating a host of cell responses, they influence the stability of lipid rafts, and modulate eicosanoid metabolism in cells of the immune system. Recent findings suggest that some or all of these mechanisms may be involved in the modulation of immune function by fatty acids. Summary: Human studies investigating the relationship between dietary fatty acids and some aspects of the immune response have been disappointingly inconsistent. This review presents the argument that most studies have not been adequately powered to take into account the influence of variation (genotypic or otherwise) on parameters of immune function. There is well-documented evidence that fatty acids modulate T lymphocyte activation, and recent findings describe a range of potential cellular and molecular mechanisms. However, there are still many questions remaining, particularly with respect to the roles of nuclear receptors, for which fatty acids act as ligands, and the modulation of eicosanoid synthesis, for which fatty acids act as precursors. .COPYRG. 2003 Lippincott Williams & Wilkins.

CONTROLLED TERM: Medical Descriptors:  
\*immune response  
inflammation  
diet  
genotype  
antiinflammatory activity  
signal transduction  
host cell  
lipid raft  
icosanoid metabolism  
T lymphocyte activation  
fatty acid synthesis  
inflammatory disease: TH, therapy  
diet supplementation  
    **rheumatoid arthritis: TH, therapy**  
osteoarthritis: TH, therapy  
enteritis: TH, therapy  
adult respiratory distress syndrome: DT, drug therapy  
atopic dermatitis: DT, drug therapy  
psoriasis: DT, drug therapy  
immunoglobulin A nephropathy: TH, therapy  
graft rejection: CO, complication  
graft rejection: PC, prevention  
graft rejection: TH, therapy  
parenteral nutrition  
enteric feeding  
human  
nonhuman  
clinical trial  
meta analysis  
systematic review  
review  
Drug Descriptors:  
\*lipid  
fatty acid  
fish oil: CM, drug comparison  
fish oil: DT, drug therapy  
fish oil: IV, intravenous drug administration  
cell nucleus receptor  
ligand  
lipid emulsion: CT, clinical trial  
lipid emulsion: DO, drug dose  
lipid emulsion: DT, drug therapy  
lipid emulsion: IV, intravenous drug administration  
lipid emulsion: PA, parenteral drug administration  
omega 3 fatty acid: CT, clinical trial  
omega 3 fatty acid: AD, drug administration  
omega 3 fatty acid: DO, drug dose  
omega 3 fatty acid: DT, drug therapy  
omega 3 fatty acid: IV, intravenous drug administration  
omega 3 fatty acid: PO, oral drug administration  
omega 3 fatty acid: TP, topical drug administration  
polyunsaturated fatty acid: CT, clinical trial  
polyunsaturated fatty acid: DO, drug dose  
polyunsaturated fatty acid: DT, drug therapy  
polyunsaturated fatty acid: IV, intravenous drug  
administration  
arachidonic acid  
gamma linolenic acid  
linolenic acid

docosaehaenoic acid  
 icosapentaenoic acid  
 lung surfactant: DT, drug therapy  
 phosphatidylcholine: DT, drug therapy  
 soybean oil: CM, drug comparison  
 soybean oil: DT, drug therapy  
 soybean oil: IV, intravenous drug administration  
 linoleic acid: DT, drug therapy  
 palmitic acid: DT, drug therapy  
 primrose oil: DT, drug therapy  
 fatty acid ester: DT, drug therapy  
 clinoleic  
 intralipid  
 arginine: CT, clinical trial  
 arginine: AD, drug administration  
 nucleotide: CT, clinical trial  
 nucleotide: AD, drug administration  
 conjugated linoleic acid  
 ivelip

CAS REGISTRY NO.: (lipid) 66455-18-3; (fish oil) 8016-13-5; (arachidonic acid) 506-32-1, 6610-25-9, 7771-44-0; (gamma linolenic acid) 1686-12-0; (linolenic acid) 1955-33-5, 463-40-1; (docosaehaenoic acid) 25167-62-8, 32839-18-2; (icosapentaenoic acid) 25378-27-2, 32839-30-8; (lung surfactant) 99732-49-7; (phosphatidylcholine) 55128-59-1, 8002-43-5; (soybean oil) 8001-22-7; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (palmitic acid) 57-10-3; (primrose oil) 65546-85-2; (clinoleic) 187413-58-7; (intralipid) 68890-65-3; (arginine) 1119-34-2, 15595-35-4, 7004-12-8, 74-79-3  
 CHEMICAL NAME: Ivelip

L174 ANSWER 12 OF 13 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:412973 BIOSIS  
 DOCUMENT NUMBER: PREV200510194031  
 TITLE: Regulatory T cells: Development, function and role in autoimmunity.  
 AUTHOR(S): Lan, Ruth Y.; Ansari, Aftab A.; Lian, Zhe-Xiong; Gershwin, M. Eric [Reprint Author]  
 CORPORATE SOURCE: Univ Calif Davis, Div Rheumatol Allergy and Clin Immunol, TB 192,1 Shields Ave, Davis, CA 95616 USA  
 megershwin@ucdavis.edu  
 SOURCE: Autoimmunity Reviews, (JUL 2005) Vol. 4, No. 6, pp. 351-363.  
 ISSN: 1568-9972.  
 DOCUMENT TYPE: Article  
 General Review; (Literature Review)  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 12 Oct 2005  
 Last Updated on STN: 12 Oct 2005

ABSTRACT: The crucial role of regulatory cells in self-tolerance and autoimmunity has been clearly established in numerous types of regulatory cells, the majority of which are CD4(+)T cells. Much focus has been placed on thymically derived CD4(+)CD25(+) regulatory T cells, given that the depletion of this subset in murine models results in the spontaneous development of autoimmune diseases. These naturally occurring regulatory T cells are found to be functionally mature in the thymus, and exert suppression in a contact-dependent manner. Another important category of immunosuppressive cells consists of conditionally induced regulatory T cells such as Tr1, Th3,

and various other CD4(+) lymphocytes. Understanding the development and regulatory functions of immunoregulatory cells may elucidate the etiology for loss of self-tolerance. This review will summarize the characteristics, developmental pathways, and functions of regulatory T cells, as well as their role in human autoimmune diseases including multiple sclerosis,

\*\*\*rheumatoid\*\*\* **arthritis**, Myasthenia Gravis, Kawasaki disease, autoimmune polyglandular syndrome type II, type I diabetes, autoimmune lymphoproliferative syndrome, and **systemic lupus**

\*\*\*erythematosus.\*\*\* (c) 2005 Published by Elsevier B.V.

CONCEPT CODE: Cytology - Animal 02506  
 Cytology - Human 02508  
 Metabolism - Metabolic disorders 13020  
 Cardiovascular system - Blood vessel pathology 14508  
 Blood - Blood and lymph studies 15002  
 Blood - Blood cell studies 15004  
 Blood - Blood, lymphatic and reticuloendothelial pathologies 15006  
 Endocrine - Pancreas 17008  
 Muscle - Pathology 17506  
 Bones, joints, fasciae, connective and adipose tissue - Pathology 18006  
 Integumentary system - Pathology 18506  
 Nervous system - Pathology 20506  
 Development and Embryology - General and descriptive 25502  
 Immunology - General and methods 34502  
 Immunology - Immunopathology, tissue immunology 34508  
 Allergy 35500

INDEX TERMS: Major Concepts  
 Development; Hematology (Human Medicine, Medical Sciences); Clinical Immunology (Human Medicine, Medical Sciences)

INDEX TERMS: Parts, Structures, & Systems of Organisms  
 CD4-positive T cell: immune system, blood and lymphatics; regulatory T cell: immune system;  
 CD4-positive CD25-positive T cell: immune system; Tr-1 T cell: immune system; Tr-3 T cell: immune system

INDEX TERMS: Diseases  
**rheumatoid arthritis**: immune system disease, joint disease, connective tissue disease  
 Arthritis, Rheumatoid (MeSH)

INDEX TERMS: Diseases  
 multiple sclerosis: nervous system disease, immune system disease  
 Multiple Sclerosis (MeSH)

INDEX TERMS: Diseases  
**systemic lupus erythematosus**  
 : immune system disease, connective tissue disease  
**Lupus Erythematosus**,  
**Systemic** (MeSH)

INDEX TERMS: Diseases  
 Kawasaki disease: vascular disease, connective tissue disease, blood and lymphatic disease, integumentary system disease

INDEX TERMS: Diseases  
 myasthenia gravis: nervous system disease, muscle disease, immune system disease  
 Myasthenia Gravis (MeSH)

INDEX TERMS: Diseases

type-1 diabetes: endocrine disease/pancreas, metabolic disease  
Diabetes Mellitus, Insulin-Dependent (MeSH)

INDEX TERMS: Diseases  
autoimmune polyglandular syndrome type II: immune system disease

INDEX TERMS: Diseases  
autoimmune lymphoproliferative syndrome: blood and lymphatic disease, immune system disease  
Autoimmune Diseases (MeSH); Lymphoproliferative Disorders (MeSH)

INDEX TERMS: Miscellaneous Descriptors  
autoimmunity; self-tolerance

ORGANISM: Classifier  
Hominidae 86215  
Super Taxa  
Primates; Mammalia; Vertebrata; Chordata; Animalia  
Organism Name  
human (common)  
Taxa Notes  
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

L174 ANSWER 13 OF 13 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:394164 BIOSIS

DOCUMENT NUMBER: PREV200000394164

TITLE: **Conjugated linoleic acid and bone biology.**

AUTHOR(S): Watkins, Bruce A. [Reprint author]; Seifert, Mark F.

CORPORATE SOURCE: Department of Food Science, Lipid Chemistry and Molecular Biology Laboratory, Purdue University, West Lafayette, IN, 47907, USA

SOURCE: Journal of the American College of Nutrition, (August, 2000) Vol. 19, No. 4 with Supplement, pp. 478S-486S. print. CODEN: JONUJL. ISSN: 0731-5724.

DOCUMENT TYPE: Article  
General Review; (Literature Review)

LANGUAGE: English

ENTRY DATE: Entered STN: 13 Sep 2000

Last Updated on STN: 8 Jan 2002

ABSTRACT: Osteoporosis, osteoarthritis and inflammatory joint disease afflict millions of people worldwide. Inflammatory cytokines inhibit chondrocyte proliferation and induce cartilage degradation for which part of the response is mediated by PGE2. Excess production of PGE2 is linked to osteoporosis and arthritis and is associated with bone and proteoglycan loss. PGE2 also influences the IGF-I/IGFBP axis to facilitate bone and cartilage formation. Recent investigations with growing rats given butter fat and supplements of CLA demonstrated an increased rate of bone formation and reduced ex vivo bone PGE2 production, respectively. Furthermore, the supplements of CLA isomers resulted in their enrichment in lipids of various bone compartments of animals. The effects of CLA on bone biology in rats (IGF action and cytokines) appear to be dependent on the level of n-6 and n-3 fatty acids in the diet; however, these studies generally showed that CLA decreased ex vivo bone PGE2 production and in osteoblast-like cultures. Anti-inflammatory diets, including nutraceutical applications of CLA, may be beneficial in moderating cyclooxygenase 2 (COX-2) activity or expression (influencing PGE2 biosynthesis) and might help to reduce \*\*\*rheumatoid\*\*\* arthritis (secondary osteoporosis). This review summarizes findings of CLA on bone modeling in rats and effects on cellular functions of osteoblasts and chondrocytes. These experiments indicate that CLA

isomers possess anti-inflammatory activity in bone by moderating prostanoid formation.

CONCEPT CODE: Bones, joints, fasciae, connective and adipose tissue -  
 Pathology 18006  
 Cytology - Animal 02506  
 Cytology - Human 02508  
 Enzymes - General and comparative studies: coenzymes  
 10802  
 Nutrition - General studies, nutritional status and methods  
 13202  
 Bones, joints, fasciae, connective and adipose tissue -  
 Physiology and biochemistry 18004  
 Immunology - Immunopathology, tissue immunology 34508

INDEX TERMS: Major Concepts  
 Skeletal System (Movement and Support); Nutrition

INDEX TERMS: Parts, Structures, & Systems of Organisms  
 cartilage: skeletal system, degradation; chondrocytes:  
 skeletal system, proliferation

INDEX TERMS: Diseases  
 arthritis: joint disease  
 Arthritis (MeSH)

INDEX TERMS: Diseases  
 inflammatory joint disease: immune system disease, joint  
 disease

INDEX TERMS: Diseases  
 osteoarthritis: joint disease  
 Osteoarthritis (MeSH)

INDEX TERMS: Diseases  
 osteoporosis: bone disease  
 Osteoporosis (MeSH)

INDEX TERMS: Chemicals & Biochemicals  
 PGE-2 [prostaglandin E-2]; **conjugated  
 linoleic acid**: anti-inflammatory  
 agent; cyclooxygenase-2: expression; n-3 fatty acids;  
 n-6 fatty acids

INDEX TERMS: Miscellaneous Descriptors  
 bone remodeling; enzyme activity

ORGANISM: Classifier  
 Hominidae 86215  
 Super Taxa  
 Primates; Mammalia; Vertebrata; Chordata; Animalia  
 Organism Name  
 human  
 Taxa Notes  
 Animals, Chordates, Humans, Mammals, Primates,  
 Vertebrates

ORGANISM: Classifier  
 Muridae 86375  
 Super Taxa  
 Rodentia; Mammalia; Vertebrata; Chordata; Animalia  
 Organism Name  
 rat  
 Taxa Notes  
 Animals, Chordates, Mammals, Nonhuman Vertebrates,  
 Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: **1839-11-8Q (conjugated linoleic  
 acid)**  
**121250-47-3Q (conjugated linoleic  
 acid)**  
 329900-75-6 (cyclooxygenase-2)



Arnold 10/756719

01/26/2006

363-24-6 (PROSTAGLANDIN E-2)

=&gt; □

TEXT SEARCH #2 (broad)

=&gt; file hcaplus

FILE 'HCAPLUS' ENTERED AT 12:32:47 ON 26 JAN 2006

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FILE COVERS 1907 - 26 Jan 2006 VOL 144 ISS 5

FILE LAST UPDATED: 25 Jan 2006 (20060125/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=&gt; d que nos L31

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L10          STR
L11          1622 SEA FILE=REGISTRY FAM FUL L10
L12          STR
L13          73 SEA FILE=REGISTRY FAM FUL L12
L19          7697 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIRHEUMATIC?/OBI
L20          19410 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ARTHRITIS/OBI (L) RHEUMATOID?/
OBI
L21          439 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ARTHUS/OBI
L22          5883 SEA FILE=HCAPLUS ABB=ON  PLU=ON  GLOMERULONEPHRIT?/OBI
L23          213 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SERUM SICKNESS?/OBI
L24          10829 SEA FILE=HCAPLUS ABB=ON  PLU=ON  LUPUS ERYTHEMATOSUS+NT/CT
L29          2382 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L11 (L) (THU OR PAC OR BAC OR
PKT OR DMA)/RL
L30          102 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13 (L) (THU OR PAC OR BAC OR
PKT OR DMA)/RL
L31          35 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L29 OR L30) AND (L19 OR L20
OR L21 OR L22 OR L23 OR L24)

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=&gt; d que nos L34

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L10          STR
L11          1622 SEA FILE=REGISTRY FAM FUL L10
L12          STR
L13          73 SEA FILE=REGISTRY FAM FUL L12
L17          38331 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L11
L18          3693 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13
L32          17 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (HYPERSENSITIV?/OBI (3A)
(TYPE III/OBI OR TYPE 3/OBI))

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L34 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L32 AND (L17 OR L18)

=> d que nos L37

L10 STR  
 L11 1622 SEA FILE=REGISTRY FAM FUL L10  
 L12 STR  
 L13 73 SEA FILE=REGISTRY FAM FUL L12  
 L17 38331 SEA FILE=HCAPLUS ABB=ON PLU=ON L11  
 L18 3693 SEA FILE=HCAPLUS ABB=ON PLU=ON L13  
 L35 41 SEA FILE=HCAPLUS ABB=ON PLU=ON (HYPERSENSITIV? (3A) (TYPE  
 III OR TYPE 3))/BI  
 L37 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 AND (L17 OR L18)

=> d que nos L40

L6 STR  
 L7 88 SEA FILE=REGISTRY FAM FUL L6  
 L8 STR  
 L9 29 SEA FILE=REGISTRY FAM FUL L8  
 L10 STR  
 L11 1622 SEA FILE=REGISTRY FAM FUL L10  
 L12 STR  
 L13 73 SEA FILE=REGISTRY FAM FUL L12  
 L15 1344 SEA FILE=HCAPLUS ABB=ON PLU=ON L7  
 L16 705 SEA FILE=HCAPLUS ABB=ON PLU=ON L9  
 L17 38331 SEA FILE=HCAPLUS ABB=ON PLU=ON L11  
 L18 3693 SEA FILE=HCAPLUS ABB=ON PLU=ON L13  
 L19 7697 SEA FILE=HCAPLUS ABB=ON PLU=ON ANTIRHEUMATIC?/OBI  
 L20 19410 SEA FILE=HCAPLUS ABB=ON PLU=ON ARTHRITIS/OBI (L) RHEUMATOID?/  
 OBI  
 L21 439 SEA FILE=HCAPLUS ABB=ON PLU=ON ARTHUS/OBI  
 L22 5883 SEA FILE=HCAPLUS ABB=ON PLU=ON GLOMERULONEPHRIT?/OBI  
 L23 213 SEA FILE=HCAPLUS ABB=ON PLU=ON SERUM SICKNESS?/OBI  
 L24 10829 SEA FILE=HCAPLUS ABB=ON PLU=ON LUPUS ERYTHEMATOSUS+NT/CT  
 L25 72 SEA FILE=HCAPLUS ABB=ON PLU=ON (L15 OR L16 OR L17 OR L18)  
 AND (L19 OR L20 OR L21 OR L22 OR L23 OR L24)  
 L29 2382 SEA FILE=HCAPLUS ABB=ON PLU=ON L11 (L) (THU OR PAC OR BAC OR  
 PKT OR DMA)/RL  
 L30 102 SEA FILE=HCAPLUS ABB=ON PLU=ON L13 (L) (THU OR PAC OR BAC OR  
 PKT OR DMA)/RL  
 L31 35 SEA FILE=HCAPLUS ABB=ON PLU=ON (L29 OR L30) AND (L19 OR L20  
 OR L21 OR L22 OR L23 OR L24)  
 L40 35 SEA FILE=HCAPLUS ABB=ON PLU=ON L31 AND L25

=> s (L31 OR L34 OR L37 OR L40) NOT (L165 OR L170)

L175 30 (L31 OR L34 OR L37 OR L40) NOT (L165 OR L170)

=> file medline

FILE MEDLINE ENTERED AT 12:32:52 ON 26 JAN 2006

FILE LAST UPDATED: 25 JAN 2006 (20060125/UP). FILE COVERS 1950 TO DATE.

On December 11, 2005, the 2006 MeSH terms were loaded.

The MEDLINE reload for 2006 will soon be available. For details on the 2005 reload, enter HELP RLOAD at an arrow prompt (=>).  
See also:

<http://www.nlm.nih.gov/mesh/>  
[http://www.nlm.nih.gov/pubs/techbull/nd04/nd04\\_mesh.html](http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html)  
[http://www.nlm.nih.gov/pubs/techbull/nd05/nd05\\_med\\_data\\_changes.html](http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_med_data_changes.html)  
[http://www.nlm.nih.gov/pubs/techbull/nd05/nd05\\_2006\\_MeSH.html](http://www.nlm.nih.gov/pubs/techbull/nd05/nd05_2006_MeSH.html)

OLDMEDLINE is covered back to 1950.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2006 vocabulary.

This file contains CAS Registry Numbers for easy and accurate

=> d que nos L66

L47	3556	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	LINOLEIC ACID/CT
L58	7794	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	IMMUNE COMPLEX DISEASES+NT/CT
L59	72531	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	ARTHRITIS, RHEUMATOID+NT/CT
L60	5036	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	ANTIRHEUMATIC AGENTS/CT
L62	29985	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	GLOMERULONEPHRITIS+NT/CT
L63	32664	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	LUPUS ERYTHEMATOSUS, SYSTEMIC+NT/CT
L66	13	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L47 AND ((L58 OR L59 OR L60) OR (L62 OR L63))

=> d que nos L67

L12		STR				
L13	73	SEA	FILE=REGISTRY	FAM	FUL	L12
L52	78	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L13
L53		SEL	PLU=ON	L13	1- CHEM	: 107 TERMS
L54	1128	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L53
L57	1128	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L52 OR L54
L58	7794	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	IMMUNE COMPLEX DISEASES+NT/CT
L59	72531	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	ARTHRITIS, RHEUMATOID+NT/CT
L60	5036	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	ANTIRHEUMATIC AGENTS/CT
L62	29985	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	GLOMERULONEPHRITIS+NT/CT
L63	32664	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	LUPUS ERYTHEMATOSUS, SYSTEMIC+NT/CT
L67	0	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L57 AND ((L58 OR L59 OR L60) OR (L62 OR L63))

=> d que nos L68

L49	5826	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	LINOLEIC ACIDS/CT
L58	7794	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	IMMUNE COMPLEX DISEASES+NT/CT
L59	72531	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	ARTHRITIS, RHEUMATOID+NT/CT
L60	5036	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	ANTIRHEUMATIC AGENTS/CT
L62	29985	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	GLOMERULONEPHRITIS+NT/CT
L63	32664	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	LUPUS ERYTHEMATOSUS, SYSTEMIC+NT/CT
L68	15	SEA	FILE=MEDLINE	ABB=ON	PLU=ON	L49 AND ((L58 OR L59 OR L60)

OR (L62 OR L63))

=&gt; s (L66-L68) not (L166 or L171)

L176 14 ((L66 OR L67 OR L68)) NOT (L166 OR L171)

=&gt; file embase

FILE 'EMBASE' ENTERED AT 12:32:56 ON 26 JAN 2006  
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FILE COVERS 1974 TO 19 Jan 2006 (20060119/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate  
 substance identification.

=&gt; d que nos L118

L12	STR
L13	73 SEA FILE=REGISTRY FAM FUL L12
L92	178 SEA FILE=EMBASE ABB=ON PLU=ON L13
L93	SEL PLU=ON L13 1- CHEM : 107 TERMS
L94	706 SEA FILE=EMBASE ABB=ON PLU=ON L93
L97	706 SEA FILE=EMBASE ABB=ON PLU=ON L92 OR L94
L103	4233 SEA FILE=EMBASE ABB=ON PLU=ON IMMUNE COMPLEX DISEASE+NT/CT
L104	52 SEA FILE=EMBASE ABB=ON PLU=ON TYPE III HYPERSENSITIV?
L105	95 SEA FILE=EMBASE ABB=ON PLU=ON HYPERSENSITIV? (3A) (TYPE III OR TYPE 3)
L107	991 SEA FILE=EMBASE ABB=ON PLU=ON ARTHUS
L108	1332 SEA FILE=EMBASE ABB=ON PLU=ON SERUM SICKNESS
L109	58197 SEA FILE=EMBASE ABB=ON PLU=ON RHEUMATOID ARTHRITIS+NT/CT
L110	4944 SEA FILE=EMBASE ABB=ON PLU=ON ANTIRHEUMATIC AGENT/CT
L112	18906 SEA FILE=EMBASE ABB=ON PLU=ON GLOMERULONEPHRITIS+NT/CT
L113	26386 SEA FILE=EMBASE ABB=ON PLU=ON SYSTEMIC LUPUS ERYTHEMATOSUS/CT

L118 0 SEA FILE=EMBASE ABB=ON PLU=ON L97 AND ((L103 OR L104 OR  
 L105) OR (L107 OR L108 OR L109 OR L110) OR (L112 OR L113))

=&gt; d que nos L126

L98	8251 SEA FILE=EMBASE ABB=ON PLU=ON LINOLEIC ACID/CT
L101	60 SEA FILE=EMBASE ABB=ON PLU=ON LINOLEIC ACID ETHYL ESTER/CT
L102	123 SEA FILE=EMBASE ABB=ON PLU=ON LINOLEIC ACID METHYL ESTER/CT
L103	4233 SEA FILE=EMBASE ABB=ON PLU=ON IMMUNE COMPLEX DISEASE+NT/CT
L104	52 SEA FILE=EMBASE ABB=ON PLU=ON TYPE III HYPERSENSITIV?
L105	95 SEA FILE=EMBASE ABB=ON PLU=ON HYPERSENSITIV? (3A) (TYPE III OR TYPE 3)
L107	991 SEA FILE=EMBASE ABB=ON PLU=ON ARTHUS
L108	1332 SEA FILE=EMBASE ABB=ON PLU=ON SERUM SICKNESS
L109	58197 SEA FILE=EMBASE ABB=ON PLU=ON RHEUMATOID ARTHRITIS+NT/CT
L110	4944 SEA FILE=EMBASE ABB=ON PLU=ON ANTIRHEUMATIC AGENT/CT
L112	18906 SEA FILE=EMBASE ABB=ON PLU=ON GLOMERULONEPHRITIS+NT/CT
L113	26386 SEA FILE=EMBASE ABB=ON PLU=ON SYSTEMIC LUPUS ERYTHEMATOSUS/CT

L126 14 SEA FILE=EMBASE ABB=ON PLU=ON ((L98 OR L101 OR L102) (L) (DT  
 OR AD OR DO OR PK OR PD OR PO)/CT) AND ((L103 OR L104 OR L105)

OR (L107 OR L108 OR L109 OR L110) OR (L112 OR L113))

=> s (L118 or L126) not (L167 or L172)

L177 13 (L118 OR L126) NOT (L167 OR L172)

=> file biosis

FILE 'BIOSIS' ENTERED AT 12:32:59 ON 26 JAN 2006  
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FILE COVERS 1969 TO DATE.  
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT  
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 25 January 2006 (20060125/ED)

=> d que nos L162

L146	5115	SEA	FILE=BIOSIS	ABB=ON	PLU=ON	LINOLEIC ACID/CT
L150	78	SEA	FILE=BIOSIS	ABB=ON	PLU=ON	HYPERSENSITIV? (3A) (TYPE III OR TYPE 3)
L152	53773	SEA	FILE=BIOSIS	ABB=ON	PLU=ON	RHEUMATOID ARTHRITIS
L153	1059	SEA	FILE=BIOSIS	ABB=ON	PLU=ON	ARTHUS
L154	806	SEA	FILE=BIOSIS	ABB=ON	PLU=ON	SERUM SICKN?
L155	2279	SEA	FILE=BIOSIS	ABB=ON	PLU=ON	ANTIRHEUMAT?
L156	1051	SEA	FILE=BIOSIS	ABB=ON	PLU=ON	IMMUNE COMPLEX DIS?
L157	17925	SEA	FILE=BIOSIS	ABB=ON	PLU=ON	GLOMERULONEPHRIT?
L158	31618	SEA	FILE=BIOSIS	ABB=ON	PLU=ON	LUPUS ERYTHEMAT? (3A) SYSTEMIC

L162 5 SEA FILE=BIOSIS ABB=ON PLU=ON L146 AND (L150 OR (L152 OR  
L153 OR L154 OR L155 OR L156 OR L157 OR L158))

=> s L162 not (L168 or L173)

L178 4 L162 NOT (L168 OR L173)

=> => dup rem L175 L176 L177 L178

FILE 'HCAPLUS' ENTERED AT 12:34:14 ON 26 JAN 2006  
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PROCESSING COMPLETED FOR L175

PROCESSING COMPLETED FOR L176

PROCESSING COMPLETED FOR L177

PROCESSING COMPLETED FOR L178

L179 58 DUP REM L175 L176 L177 L178 (3 DUPLICATES REMOVED)  
ANSWERS '1-30' FROM FILE HCAPLUS  
ANSWERS '31-44' FROM FILE MEDLINE

~~ANSWERS '45-55' FROM FILE EMBASE~~  
~~ANSWERS '56-58' FROM FILE BIOSIS~~

=> d ibib abs hitind hitstr L179 1-30; d iall L179 31-58

L179 ANSWER 1 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 1999:76851 HCAPLUS

DOCUMENT NUMBER: 130:261684

TITLE: Inhibition of protein denaturation by fatty acids, bile salts and other natural substances: a new hypothesis for the mechanism of action of fish oil in rheumatic diseases

AUTHOR(S): Saso, Luciano; Valentini, Giovanni; Casini, Maria Luisa; Mattei, Eleonora; Braghiroli, Laura; Mazzanti, Gabriela; Panzironi, Claudio; Grippa, Eleonora; Silvestrini, Bruno

CORPORATE SOURCE: Institute of Pharmacology and Pharmacognosy, University "La Sapienza", Rome, 00185, Italy

SOURCE: Japanese Journal of Pharmacology (1999), 79(1), 89-99  
 CODEN: JJPAAZ; ISSN: 0021-5198

PUBLISHER: Japanese Pharmacological Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Natural hydrophobic substances like bile salts (cholate, deoxycholate, chenodeoxycholate, lithocholate and their conjugates with glycine and taurine), fatty acids (caprylic, capric, lauric, myristic, palmitic, stearic, oleic, linoleic, arachidonic, eicosapentaenoic and docosahexaenoic acid) were much more active ( $EC_{50}$  simeq.  $10^{-4}$ - $10^{-5}$  M) than selected amino acids ( $EC_{50} > 10^{-2}$  M) and inorg. salts ( $EC_{50}$  simeq.  $10^{-1}$  M) in inhibiting heat-induced denaturation of human serum albumin in vitro. Fish oil, rich in n-3-polyunsatd. acids such as eicosapentaenoic acid and docosahexaenoic acid, administered p.o. (1 mL/kg) in the rat, protected ex vivo (after 2 h) serum against heat-induced denaturation more than bendazac, a known antidenaturant drug. Thus, we speculated that the antidenaturant activity of fish oil may be partly (in addition to the known effect on endogenous eicosanoid composition) responsible for its beneficial effects in rheumatoid arthritis and other rheumatic conditions. In this connection, it is of note that the in vitro antidenaturant activity of fish oil fatty acids was higher than that of known antidenaturant drugs such as bendazac and bindarit and nonsteroidal anti-inflammatory drugs like phenylbutazone and indomethacin which could exert beneficial effects in chronic inflammatory conditions by stabilizing endogenous proteins.

CC 1-7 (Pharmacology)

ST natural hydrophobic substance protein denaturation rheumatism; fish oil antidenaturant **antirheumatic** drug design

IT **Antirheumatic** agents

Drug design

(natural hydrophobic substances inhibition of heat-induced protein denaturation: fish oil mechanism of action in rheumatism and implication for antidenaturant drug design)

IT 51-35-4, Hydroxyproline 52-90-4, Cysteine, biological studies 56-40-6, Glycine, biological studies 56-41-7, Alanine, biological studies 56-45-1, Serine, biological studies 56-84-8, Aspartic acid, biological studies 56-85-9, Glutamine, biological studies 56-86-0, Glutamic acid, biological studies 56-87-1, Lysine, biological studies 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies 60-33-3, Linoleic acid, biological studies 63-68-3, Methionine, biological studies 63-91-2, Phenylalanine, biological studies 70-26-8, Ornithine 70-47-3, Asparagine, biological studies 71-00-1, Histidine, biological studies 72-18-4, Valine, biological

studies 72-19-5, Threonine, biological studies 73-22-3, Tryptophan, biological studies 73-32-5, Isoleucine, biological studies 74-79-3, Arginine, biological studies 81-24-3 81-25-4 83-44-3 107-35-7, Taurine 112-80-1, Oleic acid, biological studies 124-07-2, Caprylic acid, biological studies 143-07-7, Lauric acid, biological studies 147-85-3, Proline, biological studies 334-48-5, Capric acid 360-65-6 372-75-8, Citrulline 434-13-9 474-25-9 474-74-8, GlycoLithocholic acid 475-31-0 506-32-1, Arachidonic acid 516-35-8 516-50-7 516-90-5 544-63-8, Myristic acid, biological studies 640-79-9 1218-34-4, n-Acetyl-tryptophan 6217-54-5, Docosahexaenoic acid 7447-40-7, Potassium chloride, biological studies 7632-05-5, Sodium phosphate 7647-14-5, Sodium chloride, biological studies 7757-82-6, Sodium sulphate, biological studies 10043-52-4, Calcium chloride, biological studies 10417-94-4, Eicosapentaenoic acid

RL: BAC (Biological activity or effector, except adverse); BSU

(Biological study, unclassified); BIOL (Biological study)

(natural hydrophobic substances inhibition of heat-induced protein denaturation: fish oil mechanism of action in rheumatism and implication for antidenaturant drug design)

IT 60-33-3, Linoleic acid, biological studies

RL: BAC (Biological activity or effector, except adverse); BSU

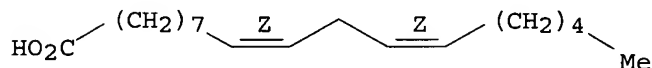
(Biological study, unclassified); BIOL (Biological study)

(natural hydrophobic substances inhibition of heat-induced protein denaturation: fish oil mechanism of action in rheumatism and implication for antidenaturant drug design)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 2 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 1997:677868 HCAPLUS

DOCUMENT NUMBER: 127:341522

TITLE: Oral administration of unsaturated fatty acids: effects on human peripheral blood T lymphocyte proliferation

AUTHOR(S): Rossetti, Ronald G.; Seiler, Christina M.; Deluca, Pamela; Laposata, Michael; Zurier, Robert B.

CORPORATE SOURCE: Division of Rheumatology, University of Massachusetts Medical Center, Worcester, MA, 01655, USA

SOURCE: Journal of Leukocyte Biology (1997), 62(4), 438-443 CODEN: JLBIE7; ISSN: 0741-5400

PUBLISHER: Federation of American Societies for Experimental Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

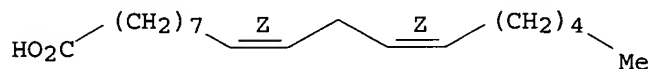
AB Oils enriched in certain polyunsatd. fatty acids suppress joint pain and swelling in rheumatoid arthritis (RA) patients. Because T lymphocyte activation is important to propagation of joint tissue injury in patients with RA, we examined the effects of fatty acids administered by mouth in vivo on proliferation of human lymphocytes activated through the T cell receptor complex. T cell proliferation was reduced after oral



administration of 2.4 g gamma-linolenic acid in capsules of borage seed oil. Oral administration of oils enriched in linoleic acid, the parent n-6 fatty acid, and alpha-linolenic acid, the parent n-3 fatty acid, did not influence growth of stimulated cells. Fatty acid analyses indicated that suppression of lymphocyte proliferation after gamma-linolenic acid administration was associated with increased plasma and peripheral blood mononuclear cell concns. of gamma-linolenic acid and dihomogammalinolenic acid.

CC 1-7 (Pharmacology)  
 Section cross-reference(s): 18, 63  
 ST unsatd fatty acid **antirheumatic** gamma linolenic  
 IT **Antirheumatic** agents  
 T cell (lymphocyte)  
 (oral administration of unsatd. fatty acids: effects on human peripheral blood T lymphocyte proliferation)  
 IT 60-33-3, Linoleic acid, biological studies 463-40-1,  
 α-Linolenic acid  
 RL: **BAC (Biological activity or effector, except adverse)**; BSU  
 (Biological study, unclassified); BIOL (Biological study)  
 (oral administration of unsatd. fatty acids: effects on human peripheral blood T lymphocyte proliferation)  
 IT 60-33-3, Linoleic acid, biological studies  
 RL: **BAC (Biological activity or effector, except adverse)**; BSU  
 (Biological study, unclassified); BIOL (Biological study)  
 (oral administration of unsatd. fatty acids: effects on human peripheral blood T lymphocyte proliferation)  
 RN 60-33-3 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 3 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2005:1026501 HCAPLUS  
 DOCUMENT NUMBER: 143:312013  
 TITLE: Esterified fatty acid composition for treatment of inflammation  
 INVENTOR(S): Spencer, William P.; Millsap, Patrick S.  
 PATENT ASSIGNEE(S): Imagenetix, Inc., USA  
 SOURCE: U.S. Pat. Appl. Publ., 11 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005208162	A1	20050922	US 2004-805386	20040322
PRIORITY APPLN. INFO.:			US 2004-805386	20040322
AB The invention is directed to compns. comprising lecithin, olive oil, esterified fatty acids and mixed tocopherols for use in the treatment and prevention of various types of arthritis and other inflammatory joint				

conditions, periodontal diseases and psoriasis, which avoid many of the side effects associated with known treatments. The compns. of the present invention have the advantage of increased stability, a reduction of arachidonic acid in cells, a reduction in eicosanoid production and enhanced

cell

regulation and communication. Also disclosed are methods for using the compns. for treatment and prevention. Thus, a topical cream containing esterified fatty acids when applied twice daily for 30 days improved pain and functional performance in patients with osteoarthritis of one or both knees. Specifically, patients with osteoarthritis had significantly greater range of motion (ROM) of the knee in the supine extended and flexed knee positions, less standing postural sway, improved ability to ascend and descend stairs, improved ability to rise from sitting, walking, and sitting down, and greater unilateral balance.

IC ICM A61K031-355

ICS A61K031-225; A61K035-78

INCL 424769000; 514458000; 514547000

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

IT Arthritis

Canis familiaris

Cardiovascular system, disease

Drug bioavailability

Drug toxicity

Felis catus

Gout

Heart, disease

Human

**Lupus erythematosus**

Osteoarthritis

Periodontium, disease

Psoriasis

**Rheumatoid arthritis**

(esterified fatty acid composition for prevention and treatment of inflammation including **arthritis**)

IT **Rheumatoid arthritis**

(juvenile; esterified fatty acid composition for prevention and treatment of inflammation including **arthritis**)

IT 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies 60-33-3, Linoleic acid, biological studies 112-80-1, Oleic acid, biological studies 143-07-7, Lauric acid, biological studies 334-48-5, Decanoic acid 373-49-9, Palmitoleic acid 463-40-1, Linolenic acid 506-30-9, Arachidic acid 544-63-8, Myristic acid, biological studies 544-64-9, Myristoleic acid

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(esterified fatty acid composition for prevention and treatment of inflammation including **arthritis**)

IT 60-33-3, Linoleic acid, biological studies

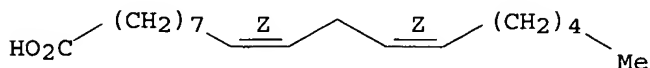
RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(esterified fatty acid composition for prevention and treatment of inflammation including **arthritis**)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 4 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2005:563466 HCAPLUS  
 DOCUMENT NUMBER: 143:103152  
 TITLE: Liposomal vaccine for the treatment of human  
 hematological malignancies  
 INVENTOR(S): Mueller, Rolf; Graser, Andreas; Konur, Abdo;  
 Mueller-Bruesselbach, Sabine  
 PATENT ASSIGNEE(S): Vectron Therapeutics Ag, Germany  
 SOURCE: Eur. Pat. Appl., 46 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1547581	A1	20050629	EP 2003-29802	20031223
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
WO 2005063201	A2	20050714	WO 2004-EP14631	20041222
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: EP 2003-29802 A 20031223

AB The present invention relates to liposomes and compns. comprising  
 liposomes, their production and use for the prevention and therapy of  
 proliferative diseases, infectious diseases, vascular diseases, rheumatoid  
 diseases, inflammatory diseases, immune diseases, and allergies.  
 Liposomes consisting of two neg. charged phospholipids (PS and PG) in  
 combination with cholesterol can substitute liposomes consisting of  
 cholesterol, PE and either PS or PG.

IC ICM A61K009-127

CC 63-3 (Pharmaceuticals)

Section cross-reference(s): 15

IT Actinomyces

Actinomyces israelii

Adenoma

Adenoviridae

Allergy

Allergy inhibitors

Analgesics

Anemia (disease)

Angiogenesis inhibitors

Anthelmintics

Antiarrhythmics

Antiasthmatics

Antibiotics

Anticoagulants

Anticonvulsants

Antidiabetic agents  
Antidotes  
Antiemetics  
    **Antirheumatic agents**  
Antitussives  
Antiviral agents  
Arenaviridae  
Bacilli  
Bacillus anthracis  
Bacteroides  
Birnaviridae  
Blastomyces  
Blastomyces dermatitidis  
Blood vessel, disease  
Borrelia  
Borrelia burgdorferi  
Bronchodilators  
Calcium channel blockers  
Calicivirus  
Campylobacter  
Candida  
Candida albicans  
Chlamydia  
Chlamydia trachomatis  
Clostridium  
Clostridium perfringens  
Clostridium tetani  
Coccidioides  
Coccidioides immitis  
Cognition enhancers  
Coronaviridae  
Coronavirus  
Corynebacterium  
Corynebacterium diphtheriae  
Cryptococcus (fungus)  
Cryptococcus neoformans  
Cytomegalovirus  
Ebola virus  
Enterobacter  
Enterobacter aerogenes  
Enterococcus  
Enterococcus faecalis  
Enterovirus  
Equine encephalosis virus  
Erysipelothrix  
Erysipelothrix rhusiopathiae  
Escherichia  
Filoviridae  
Fungicides  
Fusobacterium  
Fusobacterium nucleatum  
Haemophilus  
Haemophilus influenzae  
Hantaan virus  
Helicobacter  
Hemorrhage  
Hepadnaviridae  
Hepatitis A virus  
Hepatitis B virus  
Herpesviridae

Histoplasma  
Histoplasma capsulatum  
Human  
Human coxsackievirus  
Human echovirus  
Human herpesvirus  
Human herpesvirus 1  
Human herpesvirus 2  
Human herpesvirus 3  
Human immunodeficiency virus 1  
Human parainfluenza virus  
Human poliovirus  
Human respiratory syncytial virus  
Hypnotics and Sedatives  
Immunomodulators  
Immunostimulants  
Immunosuppressants  
Inflammation  
Influenza virus  
Iridoviridae  
Klebsiella  
Klebsiella pneumoniae  
Legionella  
Legionella pneumophila  
Leptospira  
Leukemia  
Listeria  
Listeria monocytogenes  
Lymphoma  
Mammary gland, neoplasm  
Marburg virus  
Measles virus  
Melanoma  
Mitogens  
Mumps virus  
Mycobacterium  
Mycobacterium avium  
Mycobacterium gordonae  
Mycobacterium intracellulare  
Mycobacterium kansasii  
Mycobacterium tuberculosis  
Nairovirus  
Neisseria  
Neisseria gonorrhoeae  
Neisseria meningitidis  
Neoplasm  
Neuroglia, neoplasm  
Orbivirus  
Orthomyxoviridae  
Papillomavirus  
Papovaviridae  
Paramyxoviridae  
Parvoviridae  
Parvovirus  
Pasteurella  
Pasteurella multocida  
Phlebovirus  
Picornaviridae  
Polyomavirus  
Poxviridae

Rabies virus  
 Reoviridae  
 Retroviridae  
 Rhabdoviridae  
 Rhinovirus  
 Rotavirus  
 Simian virus 40  
 Staphylococcus  
 Staphylococcus aureus  
 Streptobacillus  
 Streptobacillus moniliformis  
 Streptococcus  
 Streptococcus agalactiae  
 Streptococcus bovis  
 Streptococcus pneumoniae  
 Streptococcus pyogenes  
 Togaviridae  
 Treponema  
 Treponema pallidum pertenue  
 Vaccines  
 Vaccinia virus  
 Variola virus  
 Vesicular stomatitis virus  
 Yellow fever virus

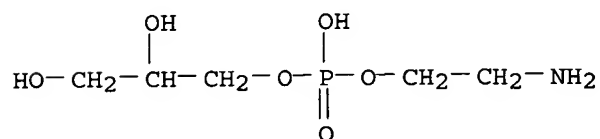
(liposomal vaccine for treatment of human hematol. malignancies)  
 IT 53-43-0 57-88-5, Cholesterol, biological studies 91-22-5D, Quinoline,  
 imidazo derivs. 111-01-3 111-02-4 2954-45-2 2954-46-3 3036-82-6,  
 Dipalmitoylphosphatidylserine 4537-76-2, Distearoylphosphatidylethanolam  
 ine 4537-77-3, Dipalmitoylphosphatidylglycerol 4537-78-4,  
 Distearoylphosphatidylglycerol 5195-02-8 5681-36-7,  
 Dipalmitoylphosphatidylethanolamine 6811-55-8 9005-65-6 9011-14-7  
 11099-07-3D, Stearin, derivs. 14994-07-1, Diarachidonoylphosphatidyletha  
 nolamine 16777-83-6, Dielaidoylphosphatidylethanolamine 17838-77-6  
 20255-95-2, Dimyristoylphosphatidylethanolamine 21645-51-2, Aluminum  
 hydroxide, biological studies 24937-47-1, Poly-L-arginine 25212-18-4,  
 Poly-L-arginine 26266-58-0 29019-22-5, Diphytanoylphosphatidylethanol  
 mine 32222-06-3 33069-62-4, Taxol 42436-56-6,  
 Dilauroylphosphatidylethanolamine 53678-77-6 60355-78-4 61361-72-6,  
 Dimyristoylphosphatidylglycerol 63644-55-3,  
 Dilauroylphosphatidylglycerol 65617-88-1 81490-05-3 83869-56-1,  
 GM-CSF 86388-25-2 89315-60-6 92216-05-2 93000-06-7, Pam3cys  
**93682-67-8** 95012-78-5 **98606-56-5** 100930-09-4  
 106392-12-5 107615-12-3 107615-13-4 107654-88-6 **107654-89-7**  
**107654-90-0** 107654-91-1 107702-50-1 107793-81-7  
 113213-76-6 117179-04-1 117179-06-3 117179-08-5 117179-11-0  
 117179-12-1 118421-51-5 **126527-13-7** 126527-14-8  
 126553-19-3 126553-20-6 126640-36-6 133863-30-6, Murapalmitine  
 141256-04-4, QS-21 160011-20-1 172889-84-8, MF 59 185256-12-6  
 214334-87-9, Dioleoylphosphatidylglycerol 215309-15-2 219312-69-3  
 294664-93-0, Bay R1005 444107-22-6 467423-50-3, Theramide  
 475650-37-4 481722-96-7 856181-58-3 856270-11-6 856470-52-5  
 856475-61-1 856700-12-4 **856700-13-5** 856700-14-6  
 856700-16-8 856702-08-4  
 RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)  
 (liposomal vaccine for treatment of human hematol. malignancies)  
 IT **93682-67-8 98606-56-5 107654-89-7**  
**107654-90-0 126527-13-7 856700-13-5**  
 RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)  
 (liposomal vaccine for treatment of human hematol. malignancies)  
 RN 93682-67-8 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)-, ester with 1,2,3-propanetriol  
1-(2-aminoethyl hydrogen phosphate) monohexadecanoate (9CI) (CA INDEX  
NAME)

CM 1

CRN 1190-00-7

CMF C5 H14 N O6 P

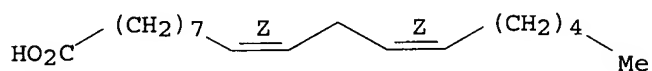


CM 2

CRN 60-33-3

CMF C18 H32 O2

Double bond geometry as shown.



CM 3

CRN 57-10-3

CMF C16 H32 O2



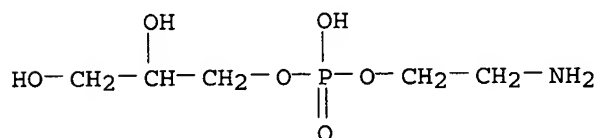
RN 98606-56-5 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)-, ester with 2-aminoethyl  
2,3-dihydroxypropyl hydrogen phosphate monooctadecanoate (ester) (9CI)  
(CA INDEX NAME)

CM 1

CRN 1190-00-7

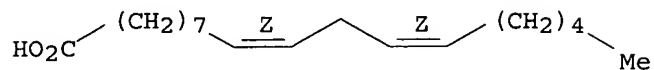
CMF C5 H14 N O6 P



CM 2

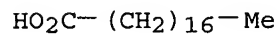
CRN 60-33-3  
CMF C18 H32 O2

Double bond geometry as shown.



CM 3

CRN 57-11-4  
CMF C18 H36 O2

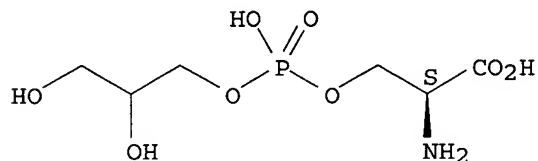


RN 107654-89-7 HCAPLUS  
CN L-Serine, monoester with 1,2,3-propanetriol 1-(dihydrogen phosphate) hexadecanoate (9Z,12Z)-9,12-octadecadienoate (9CI) (CA INDEX NAME)

CM 1

CRN 26289-09-8  
CMF C6 H14 N O8 P

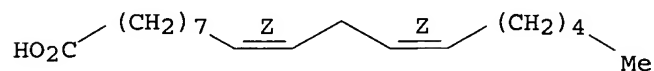
Absolute stereochemistry.



CM 2

CRN 60-33-3  
CMF C18 H32 O2

Double bond geometry as shown.



CM 3

CRN 57-10-3  
CMF C16 H32 O2



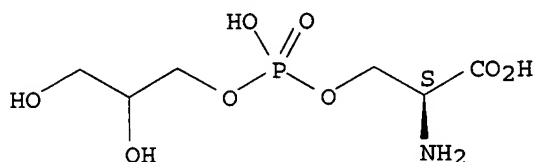
HO<sub>2</sub>C—(CH<sub>2</sub>)<sub>14</sub>—Me

RN 107654-90-0 HCAPLUS  
 CN L-Serine, monoester with 1,2,3-propanetriol 1-(dihydrogen phosphate)  
 (9Z,12Z)-9,12-octadecadienoate octadecanoate (9CI) (CA INDEX NAME)

CM 1

CRN 26289-09-8  
 CMF C6 H14 N O8 P

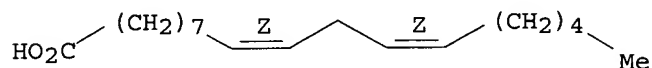
Absolute stereochemistry.



CM 2

CRN 60-33-3  
 CMF C18 H32 O2

Double bond geometry as shown.



CM 3

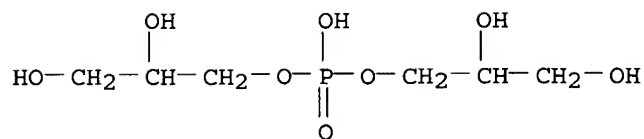
CRN 57-11-4  
 CMF C18 H36 O2

HO<sub>2</sub>C—(CH<sub>2</sub>)<sub>16</sub>—Me

RN 126527-13-7 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)-, 3(or 2)-ester with 1,2,3-propanetriol  
 1-(2,3-dihydroxypropyl hydrogen phosphate) 2(or 3)-hexadecanoate (9CI)  
 (CA INDEX NAME)

CM 1

CRN 6418-92-4  
 CMF C6 H15 O8 P

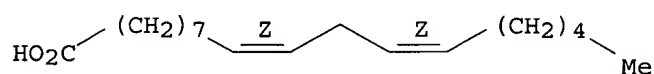


CM 2

CRN 60-33-3

CMF C18 H32 O2

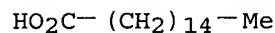
Double bond geometry as shown.



CM 3

CRN 57-10-3

CMF C16 H32 O2



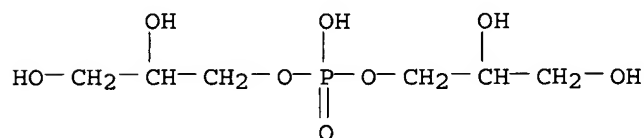
RN 856700-13-5 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)-, 3(or 2)-ester with 1,2,3-propanetriol  
1-(2,3-dihydroxypropyl hydrogen phosphate) 2(or 3)-octadecanoate (9CI)  
(CA INDEX NAME)

CM 1

CRN 6418-92-4

CMF C6 H15 O8 P

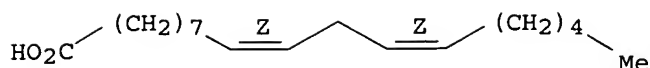


CM 2

CRN 60-33-3

CMF C18 H32 O2

Double bond geometry as shown.



CM 3

CRN 57-11-4

CMF C18 H36 O2

HO<sub>2</sub>C-(CH<sub>2</sub>)<sub>16</sub>-Me

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 5 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:371801 HCAPLUS

DOCUMENT NUMBER: 143:145483

TITLE: Evening primrose: A cure-all medicine

AUTHOR(S): Okda, Amr A. M.; Omar, Amal G.; Omar, A.-Mohsen M. E.

CORPORATE SOURCE: Department of Pharmacology and Drug Toxicology, Faculty of Medicine, University of Alexandria, Alexandria, Egypt

SOURCE: Alexandria Journal of Pharmaceutical Sciences (2005), 19(1), 85-96

CODEN: AJPSES; ISSN: 1110-1792

PUBLISHER: University of Alexandria, Faculty of Pharmacy

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. Evening primrose oil is a rich source of essential fatty acids, especially linoleic acid and gamma linolenic acid, which play important roles in maintaining normal physiol. function of the body. The pharmacol., pharmacol. effects, pharmacokinetics, and therapeutic uses and clin. studies of evening primrose are discussed.

CC 1-0 (Pharmacology)

IT **Rheumatoid arthritis**

(evening primrose rich in linoleic acid and gamma linolenic acid is effective supplementation in essential fatty acid deficiency or metabolism disorder like rheumatic arthritis in human)

IT 60-33-3, Linoleic acid, biological studies 506-26-3, Gamma linolenic acid

RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(evening primrose rich in linoleic acid and gamma linolenic acid is effective supplementation in essential fatty acid deficiency or metabolism disorder in human)

IT 60-33-3, Linoleic acid, biological studies

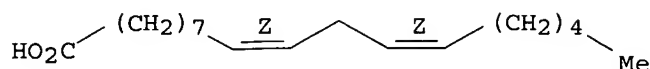
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(evening primrose rich in linoleic acid and gamma linolenic acid is effective supplementation in essential fatty acid deficiency or metabolism disorder in human)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 128 THERE ARE 128 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 6 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2004:648317 HCAPLUS  
 DOCUMENT NUMBER: 141:167775  
 TITLE: Antioxidant compound antiinflammatory compositions, and screening and diagnostic methods  
 INVENTOR(S): Keinan, Ehud; Alt, Aron  
 PATENT ASSIGNEE(S): Technion Research & Development Foundation Ltd., Israel  
 SOURCE: PCT Int. Appl., 158 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004066912	A2	20040812	WO 2004-IL96	20040201
WO 2004066912	A3	20051208		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1587482	A2	20051026	EP 2004-707174	20040201
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
PRIORITY APPLN. INFO.:			US 2003-443866P	P 20030131
			US 2003-453213P	P 20030311
			WO 2004-IL96	W 20040201

OTHER SOURCE(S): MARPAT 141:167775

AB The invention provides methods for treating medical conditions associated with inflammation employing compds. capable of inhibiting an activity and/or a formation of an oxidant associated with the inflammation, pharmaceutical composition and inhalation devices containing such compds.

Further

provided are methods of identifying drug candidates for treating inflammation-associated medical conditions by inhibiting an activity and/or a formation of an oxidant associated with the inflammation, as well as methods of diagnosing such medical conditions.

IC ICM A61K

CC 1-7 (Pharmacology)

Section cross-reference(s): 9, 63

IT    AIDS (disease)  
      Acne  
      Allergy  
      Allergy inhibitors  
      Alzheimer's disease  
      Anaphylaxis  
      Animal cell line  
      Anti-AIDS agents  
      Anti-Alzheimer's agents  
      Anti-infective agents  
      Anti-inflammatory agents  
      Antiarthritics  
      Antiasthmatics  
      Antibacterial agents  
      Anticoagulants  
      Antidiabetic agents  
      Antimalarials  
      Antimigraine agents  
      Antioxidants  
      Antiparkinsonian agents  
      Antiphospholipid syndrome  
      **Antirheumatic** agents  
      Antitumor agents  
      Antiulcer agents  
      Antiviral agents  
      Arthritis  
      Arthritis  
      Asthma  
      Atherosclerosis  
      Autoimmune disease  
      Birefringence  
      Body fluid  
      Burn  
      Cachexia  
      Cardiovascular agents  
      Cardiovascular system, disease  
      Celiac disease  
      Cirrhosis  
      Connective tissue, disease  
      Diagnosis  
      Digestive tract, disease  
      Drug delivery systems  
      Drug screening  
      Emphysema  
      Food allergy  
      Fungicides  
      Gastrointestinal agents  
      Graves' disease  
      Headache  
      Human  
      Human immunodeficiency virus  
      Immunomodulators  
      Infection  
      Inflammation  
      Influenza  
      Injury  
      Kidney, disease  
      Kidney, neoplasm  
      Liver, disease  
      Lung, disease

Malaria  
 Mesophase  
 Multiple sclerosis  
 Musculoskeletal diseases  
 Myasthenia gravis  
 Myositis  
 Necrosis  
 Neoplasm  
 Nervous system, disease  
 Nervous system agents  
 Neutrophil  
 Osteoarthritis  
 Oxidizing agents  
 Pancreas, disease  
 Parasitocides  
 Parkinson's disease  
 Polymorphonuclear leukocyte  
 Prion diseases  
 Protozoacides  
 Radical scavengers  
 Reproductive system, disease  
     **Rheumatoid arthritis**  
 Sepsis  
 Sjogren's syndrome  
 Skin, disease  
 Sunburn  
 Thrombosis  
 Thyroid gland, disease  
 Transplant and Transplantation  
 Transplant rejection  
 Tuberculosis  
 Tuberculostatics  
 Ulcer  
 Urticaria  
 Wound  
 Wound healing promoters  
     (antioxidant compound antiinflammatory compns., and screening and  
     diagnostic methods)  
 IT Inflammation  
     Kidney, disease  
         (crescentic **glomerulonephritis**; antioxidant compound  
         antiinflammatory compns., and screening and diagnostic methods)  
 IT Inflammation  
     Kidney, disease  
         (**glomerulonephritis**, pauci-immune focal necrotizing;  
         antioxidant compound antiinflammatory compns., and screening and  
         diagnostic methods)  
 IT Disease, animal  
     **Lupus erythematosus**  
         (systemic; antioxidant compound antiinflammatory compns., and screening  
         and diagnostic methods)  
 IT 60-33-3, Linoleic acid, biological studies 69-89-6D, Xanthine,  
     derivs. 74-85-1, Ethylene, biological studies 78-70-6, Linalool  
     78-79-5, Isoprene, biological studies 79-92-5, Camphene 80-56-8,  
      $\alpha$ -Pinene 87-44-5,  $\beta$ -Caryophyllene 89-82-7, Pulegone  
     98-55-5,  $\alpha$ -Terpineol 99-49-0, Carvone 99-85-4,  $\gamma$ -Terpinene  
     99-86-5,  $\alpha$ -Terpinene 106-22-9, Citronellol 106-24-1, Geraniol  
     106-25-2, Nerol 106-98-9, 1-Butene, biological studies 106-99-0,  
     Butadiene, biological studies 110-83-8, Cyclohexene, biological studies  
     112-80-1, Oleic acid, biological studies 115-07-1, Propylene, biological

studies 123-35-3, Myrcene 127-91-3,  $\beta$ -Pinene 138-86-3, Limonene 142-29-0, Cyclopentene 373-49-9, Palmitoleic acid 463-40-1, Linolenic acid 491-38-3D, Chromone, derivs. 498-16-8, Lavandulol 506-32-1, Arachidonic acid 511-59-1,  $\beta$ -Santalene 513-35-9, 2-Methyl-2-butene 515-00-4, Myrtenol 546-43-0, Alantolactone 563-79-1, 2,3-Dimethyl-2-butene 586-62-9, Terpinolene 590-18-1, cis-2-Butene 624-64-6, trans-2-Butene 2387-78-2, Cyperene 2867-05-2,  $\alpha$ -Thujene 5392-40-5, Citral 5989-08-2, Longipinene 5989-27-5, D-Limonene 7212-44-4, Nerolidol 8006-39-1, Terpinol 13062-00-5 16409-43-1, Rosoxide 17066-67-0,  $\beta$ -Eudesmene 24703-35-3, Bicyclogermacrene 29797-09-9, Cyclohexadiene 33880-83-0,  $\beta$ -Elemene 39029-41-9,  $\gamma$ -Cadinene 41702-63-0, epi-Zonarene 53111-25-4,  $\gamma$ -Himachalene 74806-04-5, Carene

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antioxidant compound antiinflammatory compns., and screening and diagnostic methods)

IT 60-33-3, Linoleic acid, biological studies

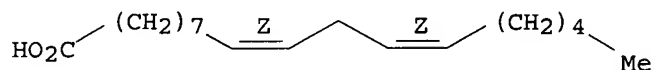
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antioxidant compound antiinflammatory compns., and screening and diagnostic methods)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 7 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:100545 HCAPLUS

DOCUMENT NUMBER: 140:151954

TITLE: Mixed zeaxanthin ester concentrates for pharmaceuticals

INVENTOR(S): Hauptmann, Randal; Pavon, Manuel; Charles, Audrey

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 24 pp., Cont.-in-part of U.S. Ser. No. 325,265.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004022881	A1	20040205	US 2003-453403	20030603
US 2003129264	A1	20030710	US 2002-180775	20020626
US 6784351	B2	20040831		
CA 2451441	AA	20030109	CA 2002-2451441	20020627
EP 1408737	A2	20040421	EP 2002-749705	20020627
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2005511003	T2	20050428	JP 2003-508156	20020627
US 2003196232	A1	20031016	US 2002-325265	20021219
US 2004216194	A1	20041028	US 2004-845044	20040513

WO 2004108635 A2 20041216 WO 2004-US15472 20040518  
 WO 2004108635 A3 20050324

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
 CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
 GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
 LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
 TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,  
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,  
 SN, TD, TG

PRIORITY APPLN. INFO.:

US 2001-302460P P 20010629  
 US 2002-180775 A2 20020626  
 US 2002-325265 A2 20021219  
 WO 2002-US20633 W 20020627  
 US 2003-453403 A 20030603

AB Mixed zeaxanthin C8-20 carboxylic acid esters in which the mixed zeaxanthin esters constitute  $\geq 50$  mg/g of the concentrate and wherein the zeaxanthin is  $\geq 20\%$  of the total carotenoids present when assayed after saponification are disclosed, as are the products that can be made from such

a concentrate, as well as the several uses for mixed zeaxanthin esters. Dried marigold corollas (1 kg), having a mixed zeaxanthin ester content of 1.0% which is determined on an aliquot by Soxhlet extraction and subsequent spectrophotometric measurement at 445 nm, is percolated with 8-L hexane. The hexane of the resulting extractant solution is evaporated at 60°. Thirty-five grams of oleoresin having a mixed zeaxanthin ester content of 9.0% are obtained. The oleoresin is stirred for 3 h with 100 mL isopropanol at 20°. The resulting suspension is filtered and the solvent is removed at ambient temperature. The resulting solid is melted at 65° and poured into a mold. After 3 h of cooling to ambient temperature, one mixed zeaxanthin ester bar (5 g) and having a mixed zeaxanthin ester content of approx. 16% is obtained. Alternatively, the mixed zeaxanthin concentrate is ground into a granular state.

IC ICM A61K035-78  
 ICS A01N065-00

INCL 424764000

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 11, 17

IT Aging, animal

Alzheimer's disease

Antitumor agents

Asteraceae

Atherosclerosis

Beverages

Cataract

Drug delivery systems

Food

Immunodeficiency

Inflammation

Neoplasm

Parkinson's disease

Radiation

**Rheumatoid arthritis**

Tagetes erecta

(mixed zeaxanthin ester concs. for pharmaceuticals)

IT 57-10-3D, Palmitic acid, reaction with zeaxanthin 57-11-4D, Stearic acid, reaction with zeaxanthin 60-33-3D, Linoleic acid, reaction



with zeaxanthin 112-80-1D, Oleic acid, reaction with zeaxanthin 126-29-4, Violaxanthin 127-40-2, Xanthophyll 127-40-2D, Xanthophyll, esters 143-07-7D, Lauric acid, reaction with zeaxanthin 144-68-3, Zeaxanthin 144-68-3D, Zeaxanthin, esters 144-68-3D, Zeaxanthin, reaction with fatty acids 334-48-5D, Capric acid, reaction with zeaxanthin 373-49-9D, Palmitoleic acid, reaction with zeaxanthin 432-70-2,  $\alpha$ -Carotene 463-40-1D, Linolenic acid, reaction with zeaxanthin 472-70-8,  $\beta$ -Cryptoxanthin 472-92-4,  $\delta$ -Carotene 502-63-6, trans- $\zeta$ -Carotene 502-64-7, Neurosporene 502-65-8, Lycopene 512-29-8, Flavoxanthin 514-90-9,  $\beta$ -Zeaxanthin 544-63-8D, Myristic acid, reaction with zeaxanthin 1002-84-2D, Pentadecanoic acid, reaction with zeaxanthin 7235-40-7,  $\beta$ -Carotene 13920-14-4, Phytoene 14660-91-4, Neoxanthin 24480-38-4,  $\alpha$ -Cryptoxanthin 27664-65-9, Phytofluene 27780-11-6, Chrysanthemaxanthin 27785-15-5, Auroxanthin 52340-80-4, cis- $\zeta$ -Carotene 68831-78-7, Antheraxanthin

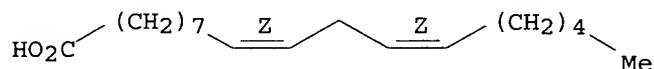
RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses) (mixed zeaxanthin ester concs. for pharmaceuticals)

IT 60-33-3D, Linoleic acid, reaction with zeaxanthin  
RL: NPO (Natural product occurrence); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses) (mixed zeaxanthin ester concs. for pharmaceuticals)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 8 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:2715 HCAPLUS

DOCUMENT NUMBER: 140:53415

TITLE: Novel complexes of fatty acid esters of polyhydroxyalkanes and pyridine carboxy derivatives

INVENTOR(S): Weidner, Morten Sloth

PATENT ASSIGNEE(S): Astion Development A/S, Den.

SOURCE: PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004000333	A1	20031231	WO 2003-DK423	20030620
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,				

BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 CA 2491871 AA 20031231 CA 2003-2491871 20030620  
 EP 1560589 A1 20050810 EP 2003-729915 20030620  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK  
 JP 2005537238 T2 20051208 JP 2004-514590 20030620  
 NO 2005000309 A 20050318 NO 2005-309 20050119  
 PRIORITY APPLN. INFO.: DK 2002-951 A 20020620  
 US 2002-389879P P 20020620  
 WO 2003-DK423 W 20030620

OTHER SOURCE(S): MARPAT 140:53415

AB The present invention relates to novel combinations of fatty acid derivs. and pyridine carboxy derivs., including fatty acid esters with glycerol and 3-carboxy pyridine derivs. such as niacinamide. Such combinations have surprisingly shown antiviral and anti-microbial activity and the use for the treatment of inflammatory conditions and infections is disclosed herein.

IC ICM A61K031-765  
 ICS A61K031-44; A61P031-04; A61P029-00

CC 1-7 (Pharmacology)

IT Acne  
 Allergy inhibitors  
 Alopecia  
 Anaphylaxis  
 Anti-inflammatory agents  
 Antiarthritics  
 Antiasthmatics  
 Antibacterial agents  
**Antirheumatic agents**  
 Antiviral agents  
 Asthma  
 Autoimmune disease  
 Common cold  
 Cosmetics  
 Cytoprotective agents  
 Disinfectants  
 Drug interactions  
 Gout  
 Human  
 Inflammation  
 Influenza  
 Mammalia  
 Osteoarthritis  
 Pneumonia  
 Pruritus  
 Psoriasis  
**Rheumatoid arthritis**  
 Seborrhea  
 Skin, disease  
 Sunburn  
 Urticaria  
 Vitiligo

(novel complexes of fatty acid esters of polyhydroxyalkanes and pyridine carboxy derivs. as therapeutic agents for treatment of disease and cosmetics and dietary supplements)

IT 50-70-4D, Sorbitol, fatty acid esters 56-81-5D, Glycerol, fatty acid esters 57-10-3D, Palmitic acid, polyhydroxyalkane esters 57-55-6D, Propylene glycol, fatty acid esters 60-33-3D, Linoleic acid, polyhydroxyalkane esters 107-88-0D, 1,3-Butylene glycol, fatty acid esters 124-07-2D, Caprylic acid, polyhydroxyalkane esters 141-22-0D,

Ricinoleic acid, polyhydroxyalkane esters 142-62-1D, Caproic acid, polyhydroxyalkane esters 143-07-7D, Lauric acid, polyhydroxyalkane esters 334-48-5D, Capric acid, polyhydroxyalkane esters 373-49-9D, Palmitoleic acid, polyhydroxyalkane esters 463-40-1D,  $\alpha$ -Linolenic acid, polyhydroxyalkane esters 506-26-3D,  $\gamma$ -Linolenic acid, polyhydroxyalkane esters 513-85-9D, 2,3-Butylene glycol, fatty acid esters 544-63-8D, Myristic acid, polyhydroxyalkane esters 544-64-9D, Myristoleic acid, polyhydroxyalkane esters 6217-54-5D, Docosaheptaenoic acid, polyhydroxyalkane esters 10417-94-4D, all-cis-5,8,11,14,17-Eicosapentaenoic acid, polyhydroxyalkane esters

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(complexes with pyridine carboxy derivs.; novel complexes of fatty acid esters of polyhydroxyalkanes and pyridine carboxy derivs. as therapeutic agents for treatment of disease and cosmetics and dietary supplements)

IT 60-33-3D, Linoleic acid, polyhydroxyalkane esters

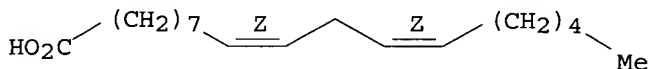
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(complexes with pyridine carboxy derivs.; novel complexes of fatty acid esters of polyhydroxyalkanes and pyridine carboxy derivs. as therapeutic agents for treatment of disease and cosmetics and dietary supplements)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 9 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:950477 HCAPLUS

DOCUMENT NUMBER: 140:19836

TITLE: Film forming polymers, methods of use, and devices and applications thereof

INVENTOR(S): Fotinos, Spiros; Tsardaka, Ekaterini; Koborozos, George

PATENT ASSIGNEE(S): Greece

SOURCE: U.S. Pat. Appl. Publ., 12 pp., Cont.-in-part of U.S. Ser. No. 537,318, abandoned.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003224053	A1	20031204	US 2003-408845	20030407
WO 2004091553	A2	20041028	WO 2004-US9969	20040401
WO 2004091553	A3	20050331		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,

LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
 NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,  
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
 ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
 SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,  
 TD, TG

EP 1613270 A2 20060111 EP 2004-759083 20040401

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR

PRIORITY APPLN. INFO.:

US 1999-149751P P 19990819

US 2000-537318 B2 20000329

US 2003-408845 A 20030407

WO 2004-US9969 W 20040401

AB Compns. and methods for delivering active agents to the skin of a subject are provided, comprising a polymer, i.e., polyvinyl alc., an active ingredient selected from a pharmaceutical agent, a wound healing agent and a cosmetic agent, and a solvent. The compns. are capable of delivery by rolling, spreading, aerosol or in droplets and of forming a film in contact with the skin. For example, a composition containing a local anesthetic

contained (A) 1st polyvinyl alc. (Mowiol 40-88) 7.3%, 2d polyvinyl alc. (Mowiol 18-88) 4.7%, and water 62.1%, and (B) propylene glycol 5.0%, lidocaine 5.0%, and ethanol absolute 15.9%.

IC ICM A61K007-42

ICS A61K031-522; A61K009-14; A61K031-19

INCL 424486000; 514263300; 424059000; 514557000

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 62

IT Adrenoceptor agonists

Adrenoceptor antagonists

Anti-inflammatory agents

Antibiotics

Antihistamines

Antimicrobial agents

Antioxidants

**Antirheumatic agents**

Cardiovascular agents

Cosmetics

Fungicides

Human

Radical scavengers

Skin

Sunburn

Vasodilators

Wound healing promoters

(film-forming polymers for delivery of cosmetic, pharmaceutical, and wound healing agents to skin)

IT 60-33-3, Linoleic acid, biological studies 69-89-6D, Xanthine, derivs. 137-58-6, Lidocaine 1244-76-4 1338-43-8, Montane 80 VGA

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(film-forming polymers for delivery of cosmetic, pharmaceutical, and wound healing agents to skin)

IT 60-33-3, Linoleic acid, biological studies

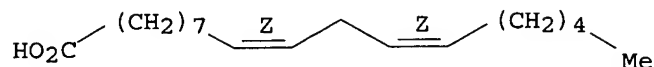
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(film-forming polymers for delivery of cosmetic, pharmaceutical, and wound healing agents to skin)

RN 60-33-3 HCAPLUS

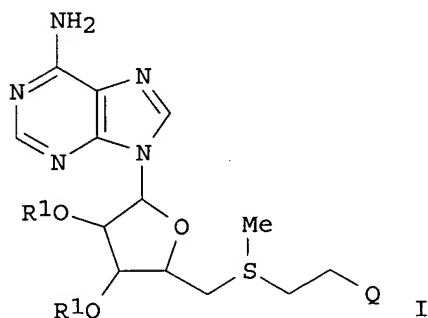
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 10 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2003:319452 HCAPLUS  
 DOCUMENT NUMBER: 138:314630  
 TITLE: Orthomolecular sulfo-adenosylmethionine derivatives  
 with antioxidant properties  
 INVENTOR(S): Wilburn, Michael D.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 17 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003078231	A1	20030424	US 2001-886612	20010622
PRIORITY APPLN. INFO.:			US 2001-886612	20010622
OTHER SOURCE(S):	MARPAT 138:314630			
GI				



AB Disclosed are orthomol. sulfo-adenosylmethionine derivative compds., compns., and their uses for effecting a biol. activity in an animal, such as neurochem. activity; liver biol. activity; heart and artery function; cartilage, bone and joint health; stomach and/or intestinal lining resistance to ulceration; immune function; cell membrane integrity; and pain and inflammation. The compds. of the present invention are further useful for preventing or treating diseases or conditions; treating viral infections, infectious diseases, leukemia, and obesity; and reducing the risk of Sudden Infant Death Syndrome in an animal. The compds. of the present invention are I (R<sub>1</sub> = H, C<sub>1</sub>-C<sub>10</sub> alkyl, C<sub>2</sub>-C<sub>10</sub> alkenyl or alkynyl, -C(O)R<sub>2</sub>; R<sub>2</sub> = C<sub>1</sub>-C<sub>10</sub> alkyl, C<sub>2</sub>-C<sub>10</sub> alkenyl or alkynyl; Q = -C(NH<sub>3</sub>)C(O)AX, -C(COOH)NHX; A = O, N; X = a defined reaction product) or pharmaceutically acceptable salt, ester or solvate thereof. α-(S-adenosylmethionine)-

O-tocopherol was prepared from N-Acetyl-S-benzyl-L-homocysteine,  $\alpha$ -tocopherol, and 5'-O-p-Tolylsulfonyladenosine.

- IC ICM A61K031-7076
- ICS C07H019-16
- INCL 514045000; 536027300
- CC 1-12 (Pharmacology)
- Section cross-reference(s): 34
- IT Inflammation
- Kidney, disease
- (**glomerulonephritis**, treatment of; orthomol.
- S-adenosyl-L-methionine derivs. with antioxidant properties)
- IT Analgesics
- Animal
- Anti-AIDS agents
- Anti-Alzheimer's agents
- Anti-infective agents
- Anti-inflammatory agents
- Antiarthritics
- Anticonvulsants
- Antidepressants
- Antidiabetic agents
- Antiobesity agents
- Antioxidants
- Antiparkinsonian agents
- Antirheumatic** agents
- Antitumor agents
- Antiviral agents
- Anxiolytics
- Human
- (orthomol. S-adenosyl-L-methionine derivs. with antioxidant properties)
- IT AIDS (disease)
- Aging, animal
- Alzheimer's disease
- Antipsychotics
- Anxiety
- Arthritis
- Arthritis
- Atherosclerosis
- Behcet's syndrome
- Biliary tract, disease
- Cachexia
- Cardiovascular system, disease
- Cirrhosis
- Cystic fibrosis
- Diabetes mellitus
- Eczema
- Epilepsy
- Graves' disease
- Infection
- Inflammation
- Leukemia
- Lupus erythematosus**
- Multiple sclerosis
- Muscular dystrophy
- Myasthenia gravis
- Neoplasm
- Nervous system, disease
- Osteoarthritis
- Osteoporosis
- Pain

Parkinson's disease

Psoriasis

**Rheumatoid arthritis**

Schizophrenia

Sickle cell anemia

Transplant rejection

(treatment of; orthomol. S-adenosyl-L-methionine derivs. with antioxidant properties)

IT 50-67-9D, Serotonin, reaction products with S-adenosyl-L-methionine derivs. 50-99-7D, D-Glucose, reaction products with S-adenosyl-L-methionine derivs. 51-41-2D, Norepinephrine, reaction products with S-adenosyl-L-methionine derivs. 51-43-4D, Epinephrine, reaction products with S-adenosyl-L-methionine derivs. 51-45-6D, Histamine, reaction products with S-adenosyl-L-methionine derivs. 51-61-6D, Dopamine, reaction products with S-adenosyl-L-methionine derivs. 51-84-3D, Acetylcholine, reaction products with S-adenosyl-L-methionine derivs. 55-10-7D, reaction products with S-adenosyl-L-methionine derivs. 56-87-1D, Lysine, reaction products with S-adenosyl-L-methionine derivs. 57-00-1D, Creatine, reaction products with S-adenosyl-L-methionine derivs. 59-92-7D, reaction products with S-adenosyl-L-methionine derivs. 60-27-5D, Creatinine, reaction products with S-adenosyl-L-methionine derivs. 61-50-7D, N,N-Dimethyltryptamine, reaction products with S-adenosyl-L-methionine derivs. 61-54-1D, Tryptamine, reaction products with S-adenosyl-L-methionine derivs. 62-49-7D, Choline, reaction products with S-adenosyl-L-methionine derivs. 67-07-2D, Phosphocreatine, reaction products with S-adenosyl-L-methionine derivs. 70-18-8D, Glutathione, reaction products with S-adenosyl-L-methionine derivs. 70-26-8D, Ornithine, reaction products with S-adenosyl-L-methionine derivs. 71-00-1D, L-Histidine, reaction products with S-adenosyl-L-methionine derivs. 73-31-4D, Melatonin, reaction products with S-adenosyl-L-methionine derivs. 83-86-3D, Phytic acid, reaction products with S-adenosyl-L-methionine derivs. 86-01-1D, GTP, reaction products with S-adenosyl-L-methionine derivs. 89-00-9D, Quinolinic acid, reaction products with S-adenosyl-L-methionine derivs. 90-24-4D, Xanthoxyl, reaction products with S-adenosyl-L-methionine derivs. 90-64-2D, Mandelic acid, reaction products with S-adenosyl-L-methionine derivs. 90-71-1D, Taxicatin, reaction products with S-adenosyl-L-methionine derivs. 97-31-4D, Normetanephrine, reaction products with S-adenosyl-L-methionine derivs. 98-98-6D, Picolinic acid, reaction products with S-adenosyl-L-methionine derivs. 99-88-7D, Cumidine, reaction products with S-adenosyl-L-methionine derivs. 106-24-1D, Geraniol, reaction products with S-adenosyl-L-methionine derivs. 107-35-7D, Taurine, reaction products with S-adenosyl-L-methionine derivs. 107-92-6D, Butyric acid, reaction products with S-adenosyl-L-methionine derivs. 107-97-1D, N-Methylglycine, reaction products with S-adenosyl-L-methionine derivs. 117-39-5D, Quercetin, reaction products with S-adenosyl-L-methionine derivs. 121-34-6D, Vanillic acid, reaction products with S-adenosyl-L-methionine derivs. 126-33-0D, Sulfolane, reaction products with S-adenosyl-L-methionine derivs. 127-17-3D, reaction products with S-adenosyl-L-methionine derivs. 127-40-2D, Lutein, reaction products with S-adenosyl-L-methionine derivs. 144-68-3D, Zeaxanthin, reaction products with S-adenosyl-L-methionine derivs. 149-91-7D, Gallic acid, reaction products with S-adenosyl-L-methionine derivs. 150-86-7D, Phytol, reaction products with S-adenosyl-L-methionine derivs. 153-18-4D, Rutin, reaction products with S-adenosyl-L-methionine derivs. 305-84-0D, Carnosine, reaction products with S-adenosyl-L-methionine derivs. 327-97-9D, Chlorogenic acid, reaction products with S-adenosyl-L-methionine derivs. 446-72-0D, Genistein, reaction products with S-adenosyl-L-methionine derivs. 458-37-7D, Curcumin, reaction products with S-adenosyl-L-methionine

derivs. 472-61-7D, Astaxanthin, reaction products with S-adenosyl-L-methionine derivs. 472-70-8D, Cryptoxanthin, reaction products with S-adenosyl-L-methionine derivs. 476-66-4D, Ellagic acid, reaction products with S-adenosyl-L-methionine derivs. 480-18-2D, Taxifolin, reaction products with S-adenosyl-L-methionine derivs. 486-66-8D, Daidzein, reaction products with S-adenosyl-L-methionine derivs. 488-69-7D, Fructose 1,6-bisphosphate, reaction products with S-adenosyl-L-methionine derivs. 490-46-0D, Epicatechin, reaction products with S-adenosyl-L-methionine derivs. 491-70-3D, Luteolin, reaction products with S-adenosyl-L-methionine derivs. 502-61-4D, Farnesene, reaction products with S-adenosyl-L-methionine derivs. 506-32-1D, Arachidonic acid, reaction products with S-adenosyl-L-methionine derivs. 506-37-6D, Nervonic acid, reaction products with S-adenosyl-L-methionine derivs. 512-29-8D, Flavoxanthin, reaction products with S-adenosyl-L-methionine derivs. 520-26-3D, Hesperidin, reaction products with S-adenosyl-L-methionine derivs. 520-33-2D, Hesperitin, reaction products with S-adenosyl-L-methionine derivs. 520-36-5D, Apigenin, reaction products with S-adenosyl-L-methionine derivs. 528-48-3D, Fisetin, reaction products with S-adenosyl-L-methionine derivs. 528-58-5D, Cyanidin chloride, reaction products with S-adenosyl-L-methionine derivs. 536-66-3D, Cumic acid, reaction products with S-adenosyl-L-methionine derivs. 541-15-1D, Carnitine, reaction products with S-adenosyl-L-methionine derivs. 545-47-1D, Lupeol, reaction products with S-adenosyl-L-methionine derivs. 584-85-0D, Anserine, reaction products with S-adenosyl-L-methionine derivs. 590-55-6D, Carbamyl phosphate, reaction products with S-adenosyl-L-methionine derivs. 607-80-7D, Sesamin, reaction products with S-adenosyl-L-methionine derivs. 673-50-7D, N-Methylhistamine, reaction products with S-adenosyl-L-methionine derivs. **693-72-1D**, Vaccenic acid, reaction products with S-adenosyl-L-methionine derivs. 700-06-1D, Indole-3-carbinol, reaction products with S-adenosyl-L-methionine derivs. 863-03-6D, Epicatechin gallate, reaction products with S-adenosyl-L-methionine derivs. 970-74-1D, Epigallocatechin, reaction products with S-adenosyl-L-methionine derivs. 989-51-5D, Epigallocatechin gallate, reaction products with S-adenosyl-L-methionine derivs. 1118-68-9D, N,N-Dimethylglycine, reaction products with S-adenosyl-L-methionine derivs. 1192-20-7D, Homoserine lactone, reaction products with S-adenosyl-L-methionine derivs. 1361-49-5D, Taxine A, reaction products with S-adenosyl-L-methionine derivs. 1481-83-0D, Flavan-3-ol, derivs., reaction products with S-adenosyl-L-methionine derivs. 1553-55-5D, HMG Co-A, reaction products with S-adenosyl-L-methionine derivs. 2009-64-5D, Neopterin, reaction products with S-adenosyl-L-methionine derivs. 2281-22-3D, S-Allylmercapto-L-cysteine, reaction products with S-adenosyl-L-methionine derivs. 2835-81-6D, analogs, reaction products with S-adenosyl-L-methionine derivs. 2922-83-0D, Kynurenine, reaction products with S-adenosyl-L-methionine derivs. 3040-38-8D, Acetyl-L-carnitine, reaction products with S-adenosyl-L-methionine derivs. 5001-33-2D, Metanephrene, reaction products with S-adenosyl-L-methionine derivs. 5308-89-4D, Taxicin I, reaction products with S-adenosyl-L-methionine derivs. 5989-27-5D, reaction products with S-adenosyl-L-methionine derivs. 7400-08-0D, p-Coumaric acid, reaction products with S-adenosyl-L-methionine derivs. 9000-69-5D, Pectin, reaction products with S-adenosyl-L-methionine derivs. 10139-06-7D, Linatine, reaction products with S-adenosyl-L-methionine derivs. 12672-40-1D, Calcium pectate, reaction products with S-adenosyl-L-methionine derivs. 15291-75-5D, Ginkgolide A, reaction products with S-adenosyl-L-methionine derivs. 15291-76-6D, Ginkgolide C, reaction products with S-adenosyl-L-methionine derivs. 15291-77-7D, Ginkgolide B, reaction products with S-adenosyl-L-methionine derivs. 17528-72-2D, Tetrahydrobiopterin,



reaction products with S-adenosyl-L-methionine derivs. 19026-31-4D, Taxodione, reaction products with S-adenosyl-L-methionine derivs. 19253-88-4D, Trimethyllysine, reaction products with S-adenosyl-L-methionine derivs. 19660-77-6D, Phytochlorin, reaction products with S-adenosyl-L-methionine derivs. 19891-74-8D, Lycoxanthin, reaction products with S-adenosyl-L-methionine derivs. 19891-75-9D, Lycophyll, reaction products with S-adenosyl-L-methionine derivs. 22059-21-8D, ACC, reaction products with S-adenosyl-L-methionine derivs. 22150-76-1D, Biopterin, reaction products with S-adenosyl-L-methionine derivs. 22888-70-6D, Silybin, reaction products with S-adenosyl-L-methionine derivs. 23513-14-6D, 6-Gingerol, reaction products with S-adenosyl-L-methionine derivs. 29908-03-0D, S-Adenosyl-L-methionine, derivs. 57072-36-3D, Queuosine, reaction products with S-adenosyl-L-methionine derivs. 57828-26-9D, Lipoic acid, reaction products with S-adenosyl-L-methionine derivs. 72496-59-4D, Queuine, reaction products with S-adenosyl-L-methionine derivs. 75645-22-6D, Diphthamide, reaction products with S-adenosyl-L-methionine derivs. 80550-27-2D, reaction products with S-adenosyl-L-methionine derivs. 92285-01-3D, Ajoene, reaction products with S-adenosyl-L-methionine derivs. 130384-52-0D, reaction products with S-adenosyl-L-methionine derivs.

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(orthomol. S-adenosyl-L-methionine derivs. with antioxidant properties)

IT 693-72-1D, Vaccenic acid, reaction products with S-adenosyl-L-methionine derivs.

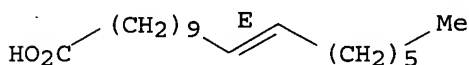
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(orthomol. S-adenosyl-L-methionine derivs. with antioxidant properties)

RN 693-72-1 HCAPLUS

CN 11-Octadecenoic acid, (11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 11 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:943786 HCAPLUS

DOCUMENT NUMBER: 140:8799

TITLE: Topical compositions containing corticosteroids and antifungal agents for the treatment of skin rashes, dermatosis and lesion

INVENTOR(S): McCadden, Michael E.

PATENT ASSIGNEE(S): USA

SOURCE: U.S., 12 pp.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6656928	B1	20031202	US 2000-652381	20000831
US 2003232086	A1	20031218	US 2003-603262	20030625

## PRIORITY APPLN. INFO.:

US 1999-152067P

P 19990902

US 2000-652381

A1 20000831

AB A composition for topical administration comprises (a) a corticosteroid, (b) a drying agent, and (c) a broad spectrum anti-fungal agent that treats both dermatophytes and yeast. Thus, a composition contained hydrocortisone 1, clotrimazole 1, and calamine lotion 98%. One patient presented with balanoposthitis. The patient had a red glistening shiny patch on his glans penis, consistent with both balanoposthitis and a psoriasis-form dermatitis. He had a chronic rash on his penis for 5 yr, which did not clear after circumcision. The composition cleared the rash in less than a month.

IC ICM A61K031-59

ICS A61K031-56; A01N043-50

INCL 514167000; 514171000; 514396000

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

IT **Lupus erythematosus**

(cutaneous; topical compns. containing corticosteroids and antifungals for treatment of skin rashes and dermatosis and lesion)

IT 50-02-2, Dexamethasone 50-03-3, Hydrocortisone acetate 50-23-7, Hydrocortisone 50-24-8, Prednisolone 50-70-4, Sorbitol, biological studies 50-81-7, Vitamin C, biological studies 53-06-5, Cortisone 56-81-5, Glycerin, biological studies 57-11-4, Stearic acid, biological studies 57-13-6, Urea, biological studies 57-55-6, Propylene glycol, biological studies 57-88-5, Cholesterol, biological studies 58-73-1 59-50-7, 4-Chloro-m-cresol 60-33-3, Linoleic acid, biological studies 62-54-4, Calcium acetate 64-17-5, Ethyl alcohol, biological studies 64-19-7, Acetic acid, biological studies 65-85-0, Benzoic acid, biological studies 67-63-0, Isopropyl alcohol, biological studies 67-73-2, Fluocinolone acetonide 76-22-2, Camphor 76-25-5, Triamcinolone acetonide 77-92-9D, Citric acid, esters with fatty alcs. 79-81-2, Retinyl palmitate 83-43-2, Methylprednisolone 83-88-5, Riboflavin, biological studies 89-78-1, Menthol 94-09-7, Benzocaine 94-13-3, Propylparaben 94-26-8, Butylparaben 99-76-3, Methylparaben 100-46-9D, Benzylamine, derivs. 100-51-6, Benzyl alcohol, biological studies 106-69-4, 1,2,6-Hexanetriol 107-11-9D, Allylamine, derivs. 107-41-5, Hexylene glycol 108-32-7, Propylene carbonate 108-95-2, Phenol, biological studies 110-27-0, Isopropyl myristate 110-44-1, Sorbic acid 111-01-3, Squalane 112-80-1, Oleic acid, biological studies 112-92-5, Stearyl alcohol 115-77-5D, Pentaerythritol, esters with fatty acids 121-79-9, Propyl gallate 125-10-0, Prednisone acetate 127-47-9, Retinyl acetate 128-37-0, Butylated hydroxytoluene, biological studies 139-33-3, Disodium edetate 140-65-8, Pramoxine 142-91-6, Isopropyl palmitate 151-21-3, Sodium lauryl sulfate, biological studies 288-32-4D, Imidazole, derivs. 303-98-0, Coenzyme Q10 356-12-7, Fluocinonide 378-44-9, Betamethasone 382-67-2, Desoximetasone 557-04-0, Magnesium stearate 557-05-1, Zinc stearate 638-94-8, Desonide 1314-13-2, Zinc oxide, biological studies 1321-10-4, Chlorocresol 1323-39-3, Propylene glycol stearate 1338-39-2, Sorbitan monolaurate 1338-41-6, Sorbitan monostearate 1338-43-8, Sorbitan monooleate 1406-16-2, Vitamin D 1406-18-4, Vitamin E 1524-88-5, Flurandrenolide 2002-29-1, Flumethasone pivalate 2152-44-5, Betamethasone valerate 3093-35-4, Halcinonide 4080-31-3, Quaternium-15 5534-13-4 5593-20-4, Betamethasone dipropionate 6677-98-1, Hydrocortisone propionate 6938-94-9, Diisopropyl adipate 7440-66-6, Zinc, biological studies 7631-90-5, Sodium bisulfite 7664-38-2, Phosphoric acid, biological studies 7681-57-4, Sodium metabisulfite 7722-64-7, Potassium permanganate 7758-98-7, Copper sulfate, biological studies 7761-88-8, Silver nitrate, biological studies 8007-43-0, Sorbitan sesquioleate 8011-96-9, Calamine 8050-81-5, Simethicone

9002-88-4, Polyethylene 9004-53-9, Dextrin 9004-64-2, Hydroxypropyl cellulose 9004-82-4, Sodium laureth sulfate 9004-95-9, Ceteth 20 9004-99-3, Polyethylene glycol monostearate 9005-00-9, Steareth 9005-08-7, Polyethylene glycol distearate 9005-25-8, Starch, biological studies 9005-64-5, Polysorbate 20 9005-65-6, Polysorbate 80 9005-66-7, Polysorbate 40 9005-67-8, Polysorbate 60 9006-65-9, Dimethicone 9007-16-3, Carbomer 934 9087-61-0, Aluminum starch octenylsuccinate 11099-07-3, Glyceryl stearate 11103-57-4, Vitamin A 11138-66-2, Xanthan gum 12001-79-5, Vitamin K 12441-09-7D, Sorbitan, esters 13609-67-1, Hydrocortisone butyrate 14807-96-6, Talc, biological studies 19045-66-0D, Thiocarbamic acid, derivs. 22298-29-9, Betamethasone benzoate 23593-75-1, Clotrimazole 24634-61-5, Potassium sorbate 25013-16-5, Butylated hydroxyanisole 25122-46-7, Clobetasol propionate 25231-21-4, Polyoxypropylene stearyl ether 25322-68-3, Polyethylene glycol 25322-68-3D, Polyethylene glycol, fatty ethers 25496-72-4, Glyceryl monooleate 26266-57-9, Sorbitan monopalmitate 27306-76-9 31566-31-1, Glyceryl monostearate 33564-31-7, Diflorasone diacetate 34097-16-0, Clcortolone pivalate 36653-82-4, Cetyl alcohol 37306-44-8D, Triazole, derivs. 37342-64-6D, Pyridone, derivs. 51022-69-6, Amcinonide 57524-89-7, Hydrocortisone valerate 57916-92-4, Carbomer 934P 66734-13-2, Alclometasone dipropionate 66852-54-8, Halobetasol propionate 73771-04-7, Prednicarbate 76050-42-5, Carbomer 940 80474-14-2, Fluticasone propionate 83919-23-7, Mometasone furoate 135843-95-7, Polypropylene glycol oleate 627846-14-4 627910-32-1, Amphoteric 9

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)  
(topical compns. containing corticosteroids and antifungals for treatment of skin rashes and dermatosis and lesion)

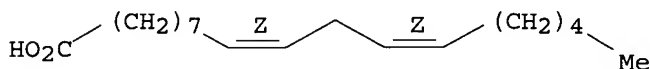
IT 60-33-3, Linoleic acid, biological studies

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)  
(topical compns. containing corticosteroids and antifungals for treatment of skin rashes and dermatosis and lesion)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 12 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:767727 HCAPLUS

DOCUMENT NUMBER: 139:240413

TITLE: Fatty acids and their salts as matrix metalloproteinase (MMP) inhibitors for treatment of MMP-related diseases

INVENTOR(S): Hattori, Koji; Ito, Kazuaki; Mizutani, Hiroshi

PATENT ASSIGNEE(S): Nonogawa Shoji Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003277259	A2	20031002	JP 2002-83973	20020325
PRIORITY APPLN. INFO.:			JP 2002-83973	20020325

AB Fatty acids and their salts, including cis-type unsatd. fatty acids, palmitic acid, stearic acid, arachidic acid, oleic acid, linoleic acid,  $\alpha$ -linoleic acid, arachidonic acid, eicosapentaenoic acid, docosahexaenoic acid, etc., and their salts are claimed as matrix metalloproteinase (MMP) inhibitors for treatment of MMP-related diseases, e.g. ulcer, cancer metastasis, chronic rheumatoid arthritis, osteoporosis, and periodontitis. Formulation examples of granules and capsules were given.

IC ICM A61K031-20  
ICS A61K031-201; A61K031-202; A61P001-02; A61P001-04; A61P019-02; A61P019-10; A61P029-00; A61P035-04; A61P043-00

CC 1-12 (Pharmacology)  
Section cross-reference(s): 63

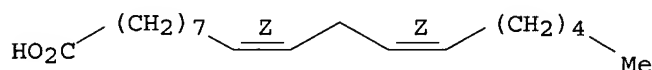
IT Anti-inflammatory agents  
    **Antirheumatic agents**  
    Antitumor agents  
    Antiulcer agents  
    Osteoporosis  
    **Rheumatoid arthritis**  
    Ulcer  
        (fatty acids and their salts as matrix metalloproteinase (MMP) inhibitors for treatment of MMP-related diseases)

IT 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies 60-33-3,  $\alpha$ -Linoleic acid, biological studies 112-80-1, Oleic acid, biological studies 506-30-9, Arachidic acid 506-32-1, Arachidonic acid 25167-62-8, Docosahexaenoic acid 25378-27-2, Eicosapentaenoic acid  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
    (fatty acids and their salts as matrix metalloproteinase (MMP) inhibitors for treatment of MMP-related diseases)

IT 60-33-3,  $\alpha$ -Linoleic acid, biological studies  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
    (fatty acids and their salts as matrix metalloproteinase (MMP) inhibitors for treatment of MMP-related diseases)

RN 60-33-3 HCAPLUS  
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 13 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:977671 HCAPLUS

DOCUMENT NUMBER: 138:44656

TITLE: Krill and/or marine extracts for treatment of cardiovascular diseases, arthritis, skin cancer, diabetes, and premenstrual syndrome

INVENTOR(S): Sampalis, Tina

PATENT ASSIGNEE(S): Neptune Technologies & Bioresources Inc., Can.

SOURCE: PCT Int. Appl., 32 pp.

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

CODEN: PIXXD2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002102394	A2	20021227	WO 2002-CA843	20020607
WO 2002102394	A3	20030410		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2449898	AA	20021227	CA 2002-2449898	20020607
EP 1406641	A2	20040414	EP 2002-734945	20020607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
CN 1516592	A	20040728	CN 2002-812181	20020607
JP 2004534800	T2	20041118	JP 2003-504980	20020607
US 2004241249	A1	20041202	US 2004-481040	20040709
PRIORITY APPLN. INFO.:			US 2001-298383P	P 20010618
			WO 2002-CA843	W 20020607

AB The present invention relates to a method of treatment and/or prevention of cardiovascular disease, rheumatoid arthritis, skin cancer, premenstrual syndrome, diabetes and transdermal transport enhancement. The method comprises the administration of a therapeutically effective amount of krill and/or marine oil to a patient. The present invention also relates to a composition for the treatment and/or prevention of these diseases. To evaluate the effects of krill and/or marine oil on the course of arteriosclerotic coronary artery disease and hyperlipidemia, a study was performed with patients with known hyperlipidemia. A group of 13 patients took krill and/or marine oil concentrate capsules. A daily uptake of 1-4.8 g krill extract

was providing to the patients a cholesterol decrease in the range of 15%, a triglycerides decrease in the range of 15%, a HDL increase in the range of 8%, a LDL decrease in the range of 13% and a cholesterol/HDL ratio decrease of 14%.

IC ICM A61K035-60

ICS A61K031-23

CC 63-3 (Pharmaceuticals)

Section cross-reference(s): 1, 62

IT Anticholesteremic agents

Cardiovascular system, disease

Cosmetics

Diabetes mellitus

Euphausiacea

Human

Osteoarthritis

Platelet aggregation inhibitors

**Rheumatoid arthritis**

Skin, neoplasm

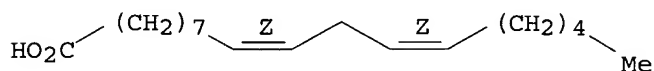
(krill and/or marine exts. for treatment of cardiovascular diseases and **arthritis** and skin cancer and premenstrual syndrome)

IT 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies 57-88-5, Cholesterol, biological studies 59-02-9,  $\alpha$ -Tocopherol 60-33-3, Linoleic acid, biological studies 68-26-8, all-trans-Retinol 112-80-1, Oleic acid, biological studies 373-49-9, Palmitoleic acid 472-61-7, Astaxanthin 506-32-1, Arachidonic acid 506-37-6, Nervonic acid 514-78-3, Canthaxanthin 6217-54-5 7235-40-7,  $\beta$ -Carotene 10417-94-4  
 RL: COS (Cosmetic use); NPO (Natural product occurrence); **THU** (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
 (krill and/or marine exts. for treatment of cardiovascular diseases and arthritis and skin cancer and premenstrual syndrome)

IT 60-33-3, Linoleic acid, biological studies  
 RL: COS (Cosmetic use); NPO (Natural product occurrence); **THU** (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
 (krill and/or marine exts. for treatment of cardiovascular diseases and arthritis and skin cancer and premenstrual syndrome)

RN 60-33-3 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 14 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:868725 HCAPLUS  
 DOCUMENT NUMBER: 137:346165  
 TITLE: Potentiation of therapeutic effects of fatty acids  
 INVENTOR(S): Horrobin, David Frederick  
 PATENT ASSIGNEE(S): Laxdale Limited, UK  
 SOURCE: PCT Int. Appl., 31 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002089787	A1	20021114	WO 2002-GB2145	20020509
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2446363	AA	20021114	CA 2002-2446363	20020509
EE 200300549	A	20040216	EE 2003-549	20020509
EP 1392276	A1	20040303	EP 2002-724472	20020509
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2002009484	A	20040706	BR 2002-9484	20020509
JP 2004537514	T2	20041216	JP 2002-586922	20020509

ZA 2003008417      A      20040524      ZA 2003-8417      20031029  
 PRIORITY APPLN. INFO.:      GB 2001-11282      A      20010509  
    WO 2002-GB2145      W      20020509

AB    The oral administration of an essential fatty acid, preferably  
       eicosapentaenoic acid, at a defined purity together with an inhibitor of  
       COX-1 or COX-2 or LOX or one or more of the FACL enzymes gives improved  
       therapeutic results over administration of the fatty acid alone.

IC    ICM    A61K031-20  
       ICS    A61P019-02; A61P025-24; A61P025-28; A61P035-00; A61K031-415;  
             A61K031-19; A61K031-405

CC    1-6 (Pharmacology)  
       Section cross-reference(s): 7, 63

IT    Alcoholism  
       Alzheimer's disease  
       Anti-Alzheimer's agents  
       Antiarthritics  
       Antiasthmatics  
       Anticonvulsants  
       Antidepressants  
       Antidiabetic agents  
       Antitumor agents  
       Anxiety  
       Arthritis  
       Asthma  
       Calcification  
       Calculi, urinary  
       Cardiovascular agents  
       Diabetes insipidus  
       Diabetes mellitus  
       Dysmenorrhea  
       Eczema  
       Encephalitis  
       Epilepsy  
       Fatigue, biological  
       Human  
       Kidney, disease  
       Mental and behavioral disorders  
       Multiple sclerosis  
       Neoplasm  
       Osteoporosis  
       Parkinson's disease  
       Psoriasis  
       Reproductive system  
       Respiratory system, disease  
       **Rheumatoid arthritis**  
       Schizophrenia  
       Urinary system, disease  
       (therapeutic effects of fatty acids)

IT    60-33-3, Linoleic acid, biological studies 60-33-3D,  
       Linoleic acid, derivs., free acid, sodium, potassium, lithium salts  
       506-26-3,  $\gamma$ -Linolenic acid    506-32-1, Arachidonic acid    1783-84-2  
       15687-27-1, Ibuprofen    20290-75-9, Stearidonic acid    25167-62-8,  
       Docosahexaenoic acid    25167-62-8D, Docosahexaenoic acid, derivs., free  
       acid, sodium, potassium, lithium salts    25378-27-2, Eicosapentaenoic acid  
       25378-27-2D, Eicosapentaenoic acid, derivs., free acid, sodium, potassium,  
       lithium salts    169590-42-5, Celecoxib  
       RL: PAC (Pharmacological activity); THU (Therapeutic  
       use); BIOL (Biological study); USES (Uses)  
       (therapeutic effects of fatty acids)

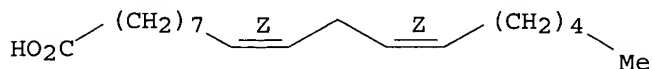
IT    60-33-3, Linoleic acid, biological studies 60-33-3D,

Linoleic acid, derivs., free acid, sodium, potassium, lithium salts  
 RL: PAC (Pharmacological activity); THU (Therapeutic  
 use); BIOL (Biological study); USES (Uses)  
 (therapeutic effects of fatty acids)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

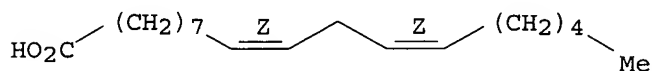
Double bond geometry as shown.



RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 15 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:813868 HCAPLUS

DOCUMENT NUMBER: 137:304766

TITLE: Use of esters of long-chain fatty acids for treatment  
 of autoimmune diseases

INVENTOR(S): Burstein, Pinchas; Ben-Nun, Avraham

PATENT ASSIGNEE(S): Yeda Research and Development Co., Ltd., Israel

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083059	A2	20021024	WO 2002-IL296	20020411
WO 2002083059	A3	20041007		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1480595	A2	20041201	EP 2002-724589	20020411
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
US 2004186072	A1	20040923	US 2004-474696	20040412
PRIORITY APPLN. INFO.:			IL 2001-142537	A 20010411

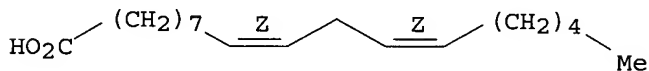


WO 2002-IL296

W 20020411

- AB Agents selected from: (i) a C1 - C24 alkyl ester of a saturated or cis-unsatd. C10 - C24 fatty acid; (ii) a monoester or polyester of a polyol having at least four hydroxy groups with a saturated or cis-unsatd. C10 - C24 fatty acid or an anhydro derivative thereof; (iii) a monoester or polyester of a mono-, di- or poly-saccharide with a saturated or cis-unsatd. C10 - C24 fatty acid; (iv) an amide of a saturated or cis-unsatd. C10 - C24 fatty acid with an aliphatic or aromatic amine or with an amino acid, peptide, protein or aminosaccharide; and (v) combinations of any of (i) to (iv), can be used for treatment of autoimmune diseases and other immune-associated inflammatory disorders. Preferred agents are Et oleate and mannide monooleate or a combination thereof.
- IC ICM A61K
- CC 1-7 (Pharmacology)
- IT Anti-inflammatory agents  
Antidiabetic agents  
**Antirheumatic agents**  
Autoimmune disease  
**Rheumatoid arthritis**  
(autoimmune disease and immune-associated inflammatory disorders treatment with esters of long-chain fatty acids)
- IT 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies 60-33-3, Linoleic acid, biological studies 111-62-6, Ethyl oleate 112-80-1, Oleic acid, biological studies 143-07-7, Lauric acid, biological studies 334-48-5, Capric acid 373-49-9, Palmitoleic acid 463-40-1, Linolenic acid 506-26-3,  $\gamma$ -Linolenic acid 506-30-9, Arachidic acid 506-32-1, Arachidonic acid 544-63-8, Myristic acid, biological studies 693-72-1, Vaccenic acid 25339-93-9, Mannide monooleate  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(autoimmune disease and immune-associated inflammatory disorders treatment with esters of long-chain fatty acids)
- IT 60-33-3, Linoleic acid, biological studies 693-72-1, Vaccenic acid  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(autoimmune disease and immune-associated inflammatory disorders treatment with esters of long-chain fatty acids)
- RN 60-33-3 HCAPLUS
- CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

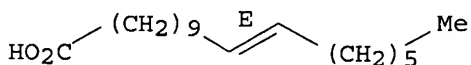
Double bond geometry as shown.



RN 693-72-1 HCAPLUS

CN 11-Octadecenoic acid, (11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 16 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:813867 HCAPLUS  
 DOCUMENT NUMBER: 137:293554  
 TITLE: Anti-inflammatory fatty alcohols and fatty acid esters  
 useful as antigen carriers  
 INVENTOR(S): Cohen, Irun R.; Shinitzky, Meir; Margalit, Raanan  
 PATENT ASSIGNEE(S): Yeda Research and Development Co., Ltd., Israel  
 SOURCE: PCT Int. Appl., 28 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083058	A2	20021024	WO 2002-IL295	20020411
WO 2002083058	A3	20040226		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2442943	AA	20021024	CA 2002-2442943	20020411
EP 1408951	A2	20040421	EP 2002-761953	20020411
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
CN 1514736	A	20040721	CN 2002-811488	20020411
JP 2004526757	T2	20040902	JP 2002-580863	20020411
NZ 528783	A	20051028	NZ 2002-528783	20020411
ZA 2003007784	A	20041006	ZA 2003-7784	20031006
NO 2003004557	A	20031205	NO 2003-4557	20031010
US 2004247604	A1	20041209	US 2004-474448	20040729
PRIORITY APPLN. INFO.:			IL 2001-142536	A 20010411
			WO 2002-IL295	W 20020411

AB Therapeutic prepsns. are provided for treatment of a T-cell mediated disease or condition comprising an antigen and a carrier, wherein said antigen is an antigen recognized by inflammatory T cells associated with the pathogenesis of said T-cell mediated disease or condition, and wherein said carrier is an anti-inflammatory immunomodulator selected from: (a) a saturated or cis-unsatd. C10-C20 fatty alc. or an ester thereof with a C1-C6 alkanolic acid; and (b) a saturated or cis-unsatd. C10-C20 fatty acid ester selected from a C1-C6 alkyl ester, a monoester with a C2-C6 polyol having a least two hydroxy groups, and a diester with glycerol. The fatty alcs. and fatty acid esters shift the T-cell cytokine response in the patient from Th1 to Th2. The T-cell mediated disease is an autoimmune disease such as type I diabetes, multiple sclerosis, rheumatoid arthritis, and autoimmune thyroiditis.

IC ICM A61K  
 CC 15-2 (Immunochemistry)  
 Section cross-reference(s): 1  
 IT Anti-inflammatory agents  
 Autoimmune disease  
 Human  
 Multiple sclerosis  
 Rheumatoid arthritis

T cell (lymphocyte)

Vaccines

(anti-inflammatory fatty alcs. and fatty acid esters useful as antigen carriers in treatment of autoimmune diseases)

IT 50-69-1D, Ribose, fatty acid esters 50-99-7D, Glucose, fatty acid esters 56-81-5D, Glycerol, fatty acid esters 57-10-3D, Palmitic acid, esters 57-11-4D, Stearic acid, esters 57-48-7D, Fructose, fatty acid esters 59-23-4D, Galactose, fatty acid esters 60-33-3D, Linoleic acid, esters 107-21-1D, 1,2-Ethylene glycol, fatty acid esters 110-63-4D, 1,4-Butanediol, fatty acid esters 111-62-6, Ethyl oleate 112-30-1, Decyl alcohol 112-53-8, Lauryl alcohol 112-62-9, Methyl oleate 112-72-1, Myristyl alcohol 112-80-1D, Oleic acid, esters 112-92-5, Stearyl alcohol 143-07-7D, Lauric acid, esters 143-28-2, Oleyl alcohol 334-48-5D, Capric acid, esters 373-49-9D, Palmitoleic acid, esters 463-40-1D, Linolenic acid, esters 504-63-2D, 1,3-Propanediol, fatty acid esters 506-17-2D, cis-Vaccenic acid, esters 506-26-3D,  $\gamma$ -Linolenic acid, esters 506-30-9D, Arachidic acid, esters 506-32-1D, Arachidonic acid, esters 506-43-4, Linoleyl alcohol 506-44-5, Linolenyl alcohol 544-63-8D, Myristic acid, esters 3458-28-4D, Mannose, fatty acid esters 24149-05-1,  $\gamma$ -Linolenyl alcohol 25496-72-4, Glyceryl monooleate 25637-84-7, Glyceryl dioleate 36653-82-4, Cetyl alcohol 291279-66-8

RL: BSU (Biological study, unclassified); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study);

USES (Uses)

(anti-inflammatory fatty alcs. and fatty acid esters useful as antigen carriers in treatment of autoimmune diseases)

IT 60-33-3D, Linoleic acid, esters 506-17-2D, cis-Vaccenic acid, esters

RL: BSU (Biological study, unclassified); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study);

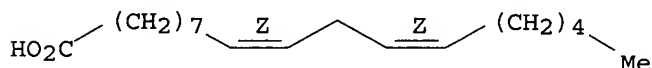
USES (Uses)

(anti-inflammatory fatty alcs. and fatty acid esters useful as antigen carriers in treatment of autoimmune diseases)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

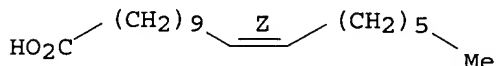
Double bond geometry as shown.



RN 506-17-2 HCAPLUS

CN 11-Octadecenoic acid, (11Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 17 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:71890 HCAPLUS

DOCUMENT NUMBER: 136:113172

TITLE: Formulations containing thyroid hormones or thyroid hormone-like agonist compounds for treating

INVENTOR(S) : dermatological conditions  
 Lavin, Thomas N.  
 PATENT ASSIGNEE(S) : Karo Bio AB, Swed.; Dean, John, Paul  
 SOURCE: PCT Int. Appl., 73 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002005834	A2	20020124	WO 2001-GB3182	20010716
WO 2002005834	A3	20030501		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6380255	B1	20020430	US 2000-617052	20000714
CA 2415285	AA	20020124	CA 2001-2415285	20010716
EP 1328265	A2	20030723	EP 2001-949712	20010716
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004519418	T2	20040702	JP 2002-511766	20010716
PRIORITY APPLN. INFO.:			US 2000-617052	A 20000714
			US 1995-481698	B2 19950607
			WO 1996-US9975	W 19960607
			US 1998-973627	A2 19980309
			WO 2001-GB3182	W 20010716

AB The present invention is directed to the use of at least one thyroid hormone compound or thyroid hormone-like agonist compound in the preparation of a topical medicament for the treatment of a dermatol. condition affecting the dermis. The thyroid hormone compound or the thyroid hormone-like agonist compound binds to TR- $\alpha$  or TR- $\beta$  with an equilibrium dissociation constant,  $K_d$ , of less than  $5 \times 10^{-6}$  M. The invention is also directed to a composition for treating a dermatol. conditions affecting the dermis and to an article of manufacture comprising packaging material and a pharmaceutical agent contained within the packaging material, wherein the pharmaceutical agent is therapeutically effective for treating such a condition. Use of at least one thyroid hormone or thyroid hormone-like agonist compound in the preparation of a topical medicament for the pre-treatment of skin in dermatol. surgery is also provided.

IC ICM A61K038-00  
 CC 2-7 (Mammalian Hormones)  
 Section cross-reference(s): 1, 63

IT **Rheumatoid arthritis**  
 (atrophy from; formulations containing thyroid hormones or thyroid hormone-like agonist compds. for treating dermatol. conditions)

IT 57-10-3D, Palmitic acid, fatty acids, esters, or triglycerides, biological studies 60-33-3D, Linoleic acid, fatty acids, esters, or triglycerides, biological studies 112-80-1D, Oleic acid, fatty acids, esters, or triglycerides, biological studies 463-40-1D, Linolenic acid, fatty acids, esters, or triglycerides

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)  
 (pharmaceutical formulation base; formulations containing thyroid hormones  
 or thyroid hormone-like agonist compds. for treating dermatol.  
 conditions)

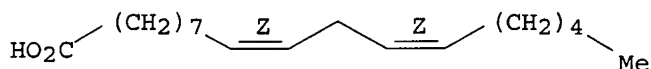
IT **60-33-3D**, Linoleic acid, fatty acids, esters, or triglycerides,  
 biological studies

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)  
 (pharmaceutical formulation base; formulations containing thyroid hormones  
 or thyroid hormone-like agonist compds. for treating dermatol.  
 conditions)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 18 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:315408 HCAPLUS

DOCUMENT NUMBER: 136:330319

TITLE: Novel antioxidants

INVENTOR(S): Avery, Mitchell Allen; Pershadsingh, Harrihar A.

PATENT ASSIGNEE(S): Bethesda Pharmaceuticals, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 56 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002048798	A1	20020425	US 2001-809518	20010314
US 6664287	B2	20031216		

PRIORITY APPLN. INFO.: US 2000-189514P P 20000315

OTHER SOURCE(S): MARPAT 136:330319

AB This invention comprises administering to a human or animal in need of treatment an effective amount of an antioxidant lipoic acid derivative and/or pharmaceutically acceptable salts and solvates thereof for the treatment or prevention of pathol. (inflammatory, proliferative and degenerative diseases, e.g. diabetes mellitus, atherosclerosis, Alzheimer's disease and chronic viral diseases) and non-pathol. (e.g. skin aging and wrinkle formation) conditions caused by oxidative damage. Methods of synthesizing novel antioxidant lipoic acid derivs. and their use in preventing or treating diseases or conditions caused by oxidative stress and other free radical mediated conditions are described. Another aspect of this invention is the use of these antioxidant compns. for the protection of skin from damage caused by UV radiation and dessication, and to provide improved skin feel by desquamating, cleansing and clarifying the skin. The compns. described in this invention increase cellular viability of epidermal cells, promote cytoprotection, and decrease the production of inflammatory mediators such as inflammatory cytokines in these cells. The antioxidant compns. are incorporated into sunscreen products, soap, moisturizing lotions, skin toners, and other skin care products.

ICM C07H007-06

ICS C07D339-04; C12N009-00

INCL 435183000

CC 62-4 (Essential Oils and Cosmetics)

Section cross-reference(s): 1, 4, 28, 63

IT Acne

Alcoholism

Antioxidants

Atherosclerosis

Cosmetics

Dermatitis

Drug toxicity

Drugs

Eczema

Hepatitis

Human

Hypertension

Hypoxia

Infection

Inflammation

Ionizing radiation

Keloid

Obesity

Osteoarthritis

Osteoporosis

Oxidative stress, biological

Poisoning, biological

Psoriasis

Rheumatoid arthritis

Seborrhea

Shampoos

Sjogren's syndrome

Skin, disease

Skin preparations (pharmaceutical)

Thrombosis

Transformation, neoplastic

UV radiation

Wart

(lipoate derivs. as antioxidants for skin products and other uses associated with oxidative stress)

IT **Lupus erythematosus**

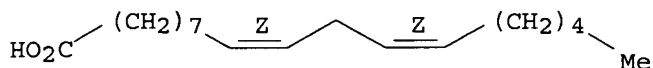
(systemic; lipoate derivs. as antioxidants for skin products and other uses associated with oxidative stress)

IT 50-21-5, Lactic acid, biological studies 50-81-7D, Ascorbic acid, derivs. 57-10-3, Palmitic acid, biological studies 60-33-3, Linoleic acid, biological studies 68-26-8D, Retinol, derivs. 79-14-1, Glycolic acid, biological studies 110-15-6, Succinic acid, biological studies 112-80-1, Oleic acid, biological studies 112-86-7, Erucic acid 117-39-5D, Quercetin, derivs. 121-79-9D, Propyl gallate, derivs. 123-31-9D, Hydroquinone, derivs. 123-99-9, Azelaic acid, biological studies 127-17-3, Pyruvic acid, biological studies 128-37-0D, BHT, derivs. 143-07-7, Lauric acid, biological studies 446-72-0D, Genistein, derivs. 463-40-1, Linolenic acid 486-66-8D, Daidzein, derivs. 506-32-1, Arachidonic acid 520-36-5D, Apigenin, derivs. 593-39-5 1077-27-6D, S- $\alpha$ -Lipoic acid, derivs. 1200-22-2D, R- $\alpha$ -Lipoic acid, derivs. 1406-16-2D, Vitamin D, derivs. 1406-18-4D, Vitamin E, derivs. 1948-33-0D, TBHQ, derivs. 5694-54-2D, Isolipoic acid, derivs. 6217-54-5, Docosaheptaenoic acid 10417-94-4, Eicosapentaenoic acid 25013-16-5D, BHA, derivs. 57828-26-9, Lipoic acid 98462-03-4, 8-(S)-Hydroxyeicosatetraenoic acid

RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(lipoate derivs. as antioxidants for skin products and other uses associated with oxidative stress)  
 IT 60-33-3, Linoleic acid, biological studies  
 RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (lipoate derivs. as antioxidants for skin products and other uses associated with oxidative stress)  
 RN 60-33-3 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 19 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2002:256747 HCAPLUS  
 DOCUMENT NUMBER: 136:257266  
 TITLE: Methods of diagnosing and treating small intestinal bacterial overgrowth and related conditions  
 INVENTOR(S): Lin, Henry C.; Pimentel, Mark  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 53 pp., Cont.-in-part of U. S. Ser. No. 374,142.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002039599	A1	20020404	US 2001-837797	20010417
CA 2220451	AA	19961121	CA 1996-2220451	19960516
US 5977175	A	19991102	US 1997-832307	19970403
US 6861053	B1	20050301	US 1999-374142	19990811
US 2002094346	A1	20020718	US 1999-420046	19991018
US 6558708	B1	20030506	US 2000-546119	20000410
CA 2444548	AA	20021024	CA 2002-2444548	20020416
WO 2002083926	A2	20021024	WO 2002-US12034	20020416
WO 2002083926	A3	20030515		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1385476	A2	20040204	EP 2002-725704	20020416
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2005509588	T2	20050414	JP 2002-582263	20020416
US 2004180834	A1	20040916	US 2004-810020	20040326
US 2005014693	A1	20050120	US 2004-853824	20040526
US 2005008652	A1	20050113	US 2004-915193	20040810

## PRIORITY APPLN. INFO.:

US 1995-442843	B1 19950517
US 1997-832307	A1 19970403
US 1999-359583	B2 19990722
US 1999-374142	A2 19990811
US 1999-420046	A2 19991018
US 2000-546119	A2 20000410
US 1999-374143	A2 19990811
WO 2000-US22030	A 20000811
WO 2000-US22168	A 20000811
WO 2001-US11238	A 20010407
US 2001-837797	A 20010417
US 2002-107240	A3 20020326
WO 2002-US12034	W 20020416
US 2004-810020	A1 20040326

AB Disclosed is a method of treating small intestinal bacterial overgrowth (SIBO) or a SIBO-caused condition in a human subject. SIBO-caused conditions include irritable bowel syndrome, fibromyalgia, chronic pelvic pain syndrome, chronic fatigue syndrome, depression, impaired mentation, impaired memory, halitosis, tinnitus, sugar craving, autism, attention deficit/hyperactivity disorder, drug sensitivity, an autoimmune disease, and Crohn's disease. Examples are provided showing effects of antibiotics on SIBO, demonstrating the roles of peptide YY and the serotonergic/adrenergic/opioid pathways in SIBO, and the effects of ondansetron, propranolol, norepinephrine and naloxone on intestinal transit. The invention thus relates to slowing upper gastrointestinal transit, thereby enhancing the digestion and/or absorption of predigested nutrients. Gastrointestinal transit-slowing compns. comprise active agents such as lipids, serotonin, serotonin agonists, serotonin re-uptake inhibitors, peptide YY, calcitonin gene-related peptide, adrenergic agonists and opioid agonists. Also disclosed are a method of screening for the abnormally likely presence of SIBO in a human subject and a method of detecting SIBO in a human subject. A method of determining the relative severity of SIBO or a SIBO-caused condition in a human subject, in whom small intestinal bacterial overgrowth has been detected, is also disclosed.

IC ICM A61K035-22

ICS A61K035-23; A01N031-00; A61K038-00

INCL 424558000

CC 1-10 (Pharmacology)

Section cross-reference(s): 9, 14, 63

IT **Lupus erythematosus**

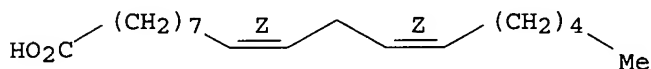
(systemic; treating small intestinal bacterial overgrowth and related conditions)

IT 50-67-9, Serotonin, biological studies 57-10-3, Hexadecanoic acid, biological studies 57-11-4, Stearic acid, biological studies 60-33-3, Linoleic acid, biological studies 112-79-8, Elaidic acid 112-80-1, Oleic acid, biological studies 112-85-6, Behenic acid 112-86-7, Erucic acid 124-07-2, Caprylic acid, biological studies 142-62-1, Caproic acid, biological studies 143-07-7, Lauric acid, biological studies 334-48-5, Capric acid 373-49-9, Palmitoleic acid 463-40-1, Linolenic acid 506-30-9, Arachidic acid 506-32-1, Arachidonic acid 506-33-2, Brassidic acid 506-37-6, Nervonic acid 544-63-8, Myristic acid, biological studies 1002-96-6, Cetoleic acid 2441-53-4, Columbinic acid 2548-85-8, Clupanodonic acid 7440-69-9D, Bismuth, compds. 7553-56-2D, Iodine, compds. 7722-84-1, Hydrogen peroxide, biological studies 10417-94-4, Timnodonic acid 16110-51-3, Cromolyn 20590-32-3, Mead acid 25167-62-8, Docosahexaenoic acid 26764-41-0, Eicosenoic acid 60607-34-3, Oxatomide 83652-28-2, Calcitonin gene-related peptide 106388-42-5, Peptide YY  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)



(treating small intestinal bacterial overgrowth and related conditions)  
 IT 60-33-3, Linoleic acid, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (treating small intestinal bacterial overgrowth and related conditions)  
 RN 60-33-3 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 20 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:767901 HCAPLUS

DOCUMENT NUMBER: 137:284345

TITLE: Active components based on lipoic acid and polyenoic fatty acids, and their compositions for pharmaceuticals, foods, and cosmetics

INVENTOR(S): Gianfranco De Paoli, Ambrosi

PATENT ASSIGNEE(S): General Topics S.R.L., Italy

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002293711	A2	20021009	JP 2001-115842	20010413

PRIORITY APPLN. INFO.: IT 2001-BS27 A 20010323

AB The active components containing lipoic acid and polyenoic fatty acids selected from linoleic acid, linolenic acid, and oleic acid are useful for pharmaceutical compns. for treatment of degenerative diseases, dermatitis, alopecia, skin ulcer, other skin diseases, rheumatoid arthritis, etc., for skin-lightening, antiaging, and antiwrinkle cosmetics, and for foods intended for body weight loss. A composition containing lipoic acid 40, polyenoic fatty acid 40, and EtOH 20 weight% significantly inhibited skin pigmentation. Formulation examples are given.

IC A61K007-00; A23L001-30; A61K007-48; A61K031-19; A61K031-381; A61P009-14; A61P017-00; A61P017-06; A61P017-08; A61P017-10; A61P017-14; A61P017-16; A61P019-02; A61P029-00; A61P037-08; A61P039-06

CC 63-6 (Pharmaceuticals)  
 Section cross-reference(s): 17, 62

IT Antiarthritics  
 Antioxidants  
 Antirheumatic agents  
 Drugs  
 Food  
 Oxidative stress, biological  
 Radical scavengers  
 Skin preparations (pharmaceutical)  
 (lipoic acid and polyenoic fatty acids for pharmaceutical, food, and cosmetic compns.)

IT Acne  
 Alopecia

Burn  
 Cardiovascular agents  
 Cardiovascular system, disease  
 Dermatitis  
 Eczema  
 Erythema  
 Granuloma  
 Keratosis  
 Osteoarthritis  
 Psoriasis

**Rheumatoid arthritis**

(therapeutic agents; lipoic acid and polyenoic fatty acids for pharmaceutical, food, and cosmetic compns.)

IT 60-33-3, Linoleic acid, biological studies 112-80-1, Oleic acid, biological studies 462-20-4, Dihydrolipoic acid 463-40-1, Linolenic acid 1077-27-6, (S)-Lipoic acid 1077-28-7, 1,2-Dithiolane-3-pentanoic acid 1200-22-2, Lipoic acid  
 RL: BSU (Biological study, unclassified); COS (Cosmetic use); FFD (Food or feed use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(lipoic acid and polyenoic fatty acids for pharmaceutical, food, and cosmetic compns.)

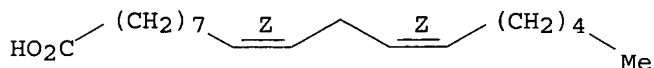
IT 60-33-3, Linoleic acid, biological studies  
 RL: BSU (Biological study, unclassified); COS (Cosmetic use); FFD (Food or feed use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)

(lipoic acid and polyenoic fatty acids for pharmaceutical, food, and cosmetic compns.)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 21 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:114958 HCAPLUS

DOCUMENT NUMBER: 134:168319

TITLE: Periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biological use thereof

INVENTOR(S): Cevc, Gregor; Huebner, Stefan

PATENT ASSIGNEE(S): Idea Ag, Germany

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001010413	A2	20010215	WO 2000-EP7546	20000803
WO 2001010413	A3	20010816		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,

HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,  
 LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,  
 SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,  
 YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,  
 CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2377422 AA 20010215 CA 2000-2377422 20000803

JP 2003506398 T2 20030218 JP 2001-514933 20000803

PRIORITY APPLN. INFO.: DE 1999-19936665 A 19990804

WO 2000-EP7546 W 20000803

AB This invention describes a method for preparing pharmaceutically usable compns. comprising periodic structures consisting of polyelectrolytes sandwiched between lipid aggregates having at least one charged component which is characterized in that a suspension of non-periodic, preferably mono- or bilayer like, lipid aggregates, a solution of polyelectrolyte mols., and a solution of oligovalent linkers are sep. made and then mixed to form said periodic structures, the simultaneous presence of said components catalyzing the formation of controlling the rate of formation of said periodic structures comprising at least one layer of lipid component associated with a layer of polyelectrolyte mols.

IC ICM A61K009-127

CC 63-5 (Pharmaceuticals)

Section cross-reference(s): 3, 15

IT Anti-inflammatory agents

Antiarthritics

Anticonvulsants

Behcet's syndrome

Bone, disease

Cataract

Chelating agents

Drug delivery systems

Eosinophilia

Evaporation

Filtration

Freeze drying

Gene therapy

Genetic vectors

Homogenization

Infection

**Lupus erythematosus**

Myasthenia gravis

Osteoarthritis

Pain

Particle size distribution

Periodic structures

Polyelectrolytes

Pore size distribution

Psoriasis

Skin, disease

Skin, disease

(periodic structures comprising lipids, polyelectrolytes, and structure-inducing soluble oligovalent linkers, and biol. use thereof)

IT 54-85-3, Isonicotinic acid hydrazide 57-56-7, Semicarbazide 60-35-5, Acetamide, biological studies 67-62-9, Methoxyamine 71-44-3, Spermine 74-89-5, Methylamine, biological studies 75-04-7, Ethylamine, biological studies 75-50-3, Trimethylamine, biological studies 79-05-0, Propionamide 107-10-8, n-Propylamine, biological studies 107-15-3, Ethylenediamine, biological studies 109-73-9, n-Butylamine, biological studies 109-76-2, 1,3-Diaminopropane 109-85-3, 2-Methoxyethylamine

109-89-7, Diethylamine, biological studies 110-60-1, Putrescine  
 110-76-9, 2-Ethoxyethylamine 121-44-8, Triethylamine, biological studies  
 124-20-9, Spermidine 124-40-3, Dimethylamine, biological studies  
 141-43-5, Ethanolamine, biological studies 143-19-1, Sodium oleate  
 302-01-2, Hydrazine, biological studies 302-95-4, Sodium deoxycholate  
 462-94-2, Cadaverine 590-88-5, 1,3-Diaminobutane 629-25-4, Sodium  
 laurate 822-12-8, Sodium myristate **822-17-3**, Sodium linoleate  
 3282-73-3, DDAB 16409-34-0, Sodium glycodeoxycholate 18175-45-6,  
 Sodium elaidate 104162-48-3, Dotma 124050-77-7 137056-72-5, Dc-chol  
 144189-73-1, Dotap 153312-64-2, Dmrie 168479-03-6, DOSPA  
 169619-96-9, Dotim

RL: PEP (Physical, engineering or chemical process); PRP (Properties);  
**THU (Therapeutic use)**; BIOL (Biological study); PROC (Process);  
 USES (Uses)

(periodic structures comprising lipids, polyelectrolytes, and  
 structure-inducing soluble oligovalent linkers, and biol. use thereof)

IT **822-17-3**, Sodium linoleate

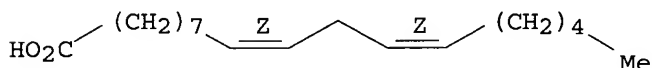
RL: PEP (Physical, engineering or chemical process); PRP (Properties);  
**THU (Therapeutic use)**; BIOL (Biological study); PROC (Process);  
 USES (Uses)

(periodic structures comprising lipids, polyelectrolytes, and  
 structure-inducing soluble oligovalent linkers, and biol. use thereof)

RN 822-17-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)-, sodium salt (9CI) (CA INDEX NAME)

Double bond geometry as shown.



● Na

L179 ANSWER 22 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:343550 HCAPLUS

DOCUMENT NUMBER: 135:132034

TITLE: Inhibition of heat-induced denaturation of albumin by  
 nonsteroidal antiinflammatory drugs (NSAIDs):  
 pharmacological implications

AUTHOR(S): Saso, Luciano; Valentini, Giovanni; Casini, Maria  
 Luisa; Grippa, Eleonora; Gatto, Maria Teresa; Leone,  
 Maria Grazia; Silvestrini, Bruno

CORPORATE SOURCE: Department of Pharmacology of Natural Substances and  
 General Physiology, University of Rome "La Sapienza",  
 Rome, 00185, Italy

SOURCE: Archives of Pharmacal Research (2001), 24(2), 150-158  
 CODEN: APHRDQ; ISSN: 0253-6269

PUBLISHER: Pharmaceutical Society of Korea

DOCUMENT TYPE: Journal

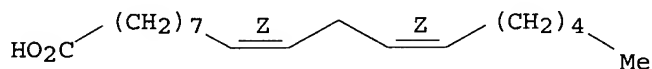
LANGUAGE: English

AB The activity of nonsteroidal antiinflammatory drugs (NSAIDs) in rheumatoid  
 arthritis is not only due to the inhibition of the production of  
 prostaglandins, which can even have beneficial immunosuppressive effects  
 in chronic inflammatory processes. Since we speculated that these drugs  
 could also act by protecting endogenous proteins against denaturation, we  
 evaluated their effect on heat-induced denaturation human serum albumin

(HSA) in comparison with several fatty acids which are known to be potent stabilizers of this protein. By the Mizushimas assay and a recently developed HPLC assay, we observed that NSAIDs were slightly less active [EC50.apprx.10-5-10-4 M] than FA and that the HPLC method was less sensitive but more selective than the turbidimetric assay, i.e. it was capable of distinguishing true antiaggregant agents like FA and NSAIDs from substances capable of inhibiting the precipitation of denatured protein aggregates. In conclusion, this survey could be useful for the development of more effective agents in protein condensation diseases like rheumatic disorders, cataract and Alzheimer's disease.

CC 1-7 (Pharmacology)  
 ST NSAIDs albumin denaturation Mizushimas assay; nonsteroidal antiinflammatory **antirheumatic** protein condensation disease  
 IT **Antirheumatic** agents  
     (inhibition of heat-induced denaturation of albumin by nonsteroidal antiinflammatory drugs: pharmacol. implications)  
 IT 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies 60-33-3, Linoleic acid, biological studies 112-80-1, Oleic acid, biological studies 124-07-2, Caprylic acid, biological studies 143-07-7, Lauric acid, biological studies 334-48-5, Capric acid 463-40-1,  $\alpha$ -Linolenic acid 506-26-3,  $\gamma$ -Linolenic acid 506-30-9, Arachidic acid 506-32-1, Arachidonic acid 544-63-8, Myristic acid, biological studies 6217-54-5, Docosaehaenoic acid 10417-94-4, Eicosapentaenoic acid  
 RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
     (inhibition of heat-induced denaturation of albumin by nonsteroidal antiinflammatory drugs: pharmacol. implications)  
 IT 60-33-3, Linoleic acid, biological studies  
 RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
     (inhibition of heat-induced denaturation of albumin by nonsteroidal antiinflammatory drugs: pharmacol. implications)  
 RN 60-33-3 HCAPLUS  
 CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 23 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2000:456858 HCAPLUS  
 DOCUMENT NUMBER: 133:94512  
 TITLE: Improved formulation for topical non-invasive application in vivo  
 INVENTOR(S): Cevc, Gregor  
 PATENT ASSIGNEE(S): Idea Innovative Dermale Applikationen G.m.b.H., Germany  
 SOURCE: PCT Int. Appl., 73 pp.  
           CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000038653	A1	20000706	WO 1998-EP8421	19981223
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2356080	AA	20000706	CA 1998-2356080	19981223
AU 9925137	A1	20000731	AU 1999-25137	19981223
AU 770803	B2	20040304		
EP 1140021	A1	20011010	EP 1998-966846	19981223
EP 1140021	B1	20040804		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
BR 9816113	A	20011023	BR 1998-16113	19981223
JP 2002533379	T2	20021008	JP 2000-590607	19981223
EE 200100342	A	20021015	EE 2001-200100342	19981223
RU 2207844	C2	20030710	RU 2001-120008	19981223
AT 272391	E	20040815	AT 1998-966846	19981223
ES 2226203	T3	20050316	ES 1998-966846	19981223
HR 2001000309	A1	20020630	HR 2001-309	20010502
HR 20010309	B1	20050630		
NO 2001003164	A	20010822	NO 2001-3164	20010622
US 2002064524	A1	20020530	US 2001-887493	20010622
HK 1040629	A1	20050128	HK 2002-102230	20020323

PRIORITY APPLN. INFO.:

WO 1998-EP8421 A 19981223

OTHER SOURCE(S): MARPAT 133:94512

AB A formulation comprises mol. arrangements capable of penetrating pores in a barrier, owing to penetrant adaptability, despite the fact that the average diameter of the pores is smaller than the average penetrant diameter, provided that

the penetrants can transport agents or cause permeation through the pores after penetrants have entered pores. The formulation comprises at least 1 consistency builder in an amount that increases the formulation to maximally 5 Nm/s so that spreading over is enabled. The formulation also contains 1 antioxidant in an amount that reduces the increase of oxidation index to <100% per 6 mo and/or at least 1 microbicide in an amount that reduces the bacterial count of 1 million germs added/g of total mass of the formulation to <100 in the case of aerobic bacteria, to <10 in the case of entero-bacteria, and to <1 in the case of Pseudomonas aeruginosa or Staphylococcus aureus, after a period of 4 days. Thus, a composition contained soybean phosphatidylcholine 347, Tween-80 623, sodium dodecyl sulfate 30, benzyl alc. 50, clobetasol 17-propionate 25 and pH 6.5 50 mM phosphate buffer 9000 mg.

IC ICM A61K009-127

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

IT Alopecia

Anemia (disease)

Antiarrhythmics

Antioxidants

Asthma

Bone, disease

Cataract  
 Chelating agents  
 Dermatomyositis  
 Eczema  
 Epilepsy  
 Gums and Mucilages  
**Lupus erythematosus**  
 Mononucleosis  
 Myasthenia gravis  
 Nausea  
 Osteoarthritis  
 Permeation enhancers  
 Psoriasis  
 Sarcoidosis  
 Skin, disease  
 Surfactants  
 Thyroid gland, disease  
 Urticaria

(penetrating formulation for topical non-invasive application in vivo)  
 IT 50-06-6, Phenobarbital, biological studies 50-33-9, Phenylbutazone, biological studies 50-78-2, Acetylsalicylic acid 50-81-7, Ascorbic Acid, biological studies 50-99-7, Glucose, biological studies 52-67-5, Penicillamine 53-86-1, Indomethacin 54-05-7, Chloroquine 54-64-8, Thiomersal 55-56-1, Chlorhexidine 55-68-5, Phenylmercuric nitrate 56-81-5, Glycerol, biological studies 57-15-8, Chlorbutanol 59-02-9,  $\alpha$ -Tocopherol 59-05-2, Methotrexate 59-50-7, 4-Chloro-m-cresol 60-00-4, EDTA, biological studies 61-68-7, Mefenamic acid 62-38-4, Phenylmercuric acetate 62-56-6, Thiourea, biological studies 64-17-5, Ethyl alcohol, biological studies 65-85-0, Benzoic acid, biological studies 67-63-0, Isopropyl alcohol, biological studies 67-68-5D, DMSO, alkyl derivs. 69-72-7, Salicylic Acid, biological studies 69-93-2, Uric acid, biological studies 70-18-8, Glutathione, biological studies 70-30-4, Hexachlorophene 81-24-3D, salts 81-25-4D, salts 83-44-3D, salts 83-89-6, Quinacrine 86-74-8, Carbazole 89-65-6 90-05-1, Guaiacol 90-34-6, Primaquine 94-13-3, Propylparaben 94-18-8, Benzylparaben 94-26-8, Butylparaben 97-23-4, Dichlorophene 99-50-3, Protocatechuic Acid 99-76-3, Methylparaben 100-51-6, Benzyl alcohol, biological studies 102-98-7, Phenylmercuric borate 103-90-2, Acetaminophen 107-15-3D, Ethylenediamine, derivs. 107-21-1, Ethylene glycol, biological studies 110-27-0, Isopropyl myristate 110-44-1, Sorbic acid 112-53-8, 1-Dodecanol 112-80-1, Oleic acid, biological studies 118-42-3, Hydroxychloroquine 119-13-1,  $\delta$ -Tocopherol 120-47-8, Ethylparaben 121-33-5, Vanillin 121-79-9, Propyl Gallate 122-39-4, Diphenylamine, biological studies 123-03-5, Cetylpyridinium chloride 123-31-9, Hydroquinone, biological studies 128-37-0, BHT, biological studies 129-20-4, Oxyphenbutazone 137-66-6 138-14-7, Desferal 141-78-6, EtOAc, biological studies 143-19-1, Sodium oleate 143-28-2, Oleyl alcohol 148-03-8,  $\beta$ -Tocopherol 149-91-7, Gallic Acid, biological studies 151-41-7, Lauryl sulfate 302-95-4, Sodium deoxycholate 327-97-9, Chlorogenic acid 331-39-5, Caffeic acid 360-65-6D, salts 446-86-6, Azathioprine 475-31-0D, salts 476-66-4, Ellagic Acid 484-78-6, 3-Hydroxykynurenine 490-79-9, Gentisic acid 500-38-9, Nordihydroguaiaretic Acid 516-50-7D, salts 525-66-6, Propranolol 530-57-4, Syringic Acid 530-59-6, Sinapic acid 530-78-9, Flufenamic acid 534-61-2, IsoChlorogenic acid 538-71-6, Phenododecinium bromide 548-93-6, 3-Hydroxyanthranilic acid 616-91-1, N-Acetylcysteine 621-82-9, Cinnamic acid, biological studies 629-25-4, Sodium laurate 635-65-4, Bilirubin, biological studies 822-17-3, Sodium linoleate 1118-68-9D, Dimethylglycine, alkyl derivs. 1135-24-6, Ferulic acid 1319-77-3, Cresol 1643-20-5,

Dodecyltrimethylamine oxide 1948-33-0, tert-Butylhydroquinone  
 1951-25-3, Amiodarone 2002-22-4D, derivs. 2495-84-3 3650-09-7,  
 Carnosic acid 4353-06-4 5432-30-4 5677-55-4, Ubiquinol-10  
 5957-80-2, Carnosol 7235-40-7,  $\beta$ -Carotene 7347-25-3, Sodium  
 taurate 7616-22-0,  $\gamma$ -Tocopherol 7631-90-5, Sodium bisulphite  
 7681-57-4, Sodium metabisulfite 7747-53-7 9000-07-1, Carrageenan  
 9000-30-0, Guar-gum 9000-65-1, Tragacanth 9000-69-5, Pectin  
 9001-05-2, Catalase 9002-88-4, Polyethylene glycol dodecyl ether 9002-89-5, Polyvinyl  
 alcohol 9002-92-0, Polyethylene glycol dodecyl ether 9002-96-4  
 9003-39-8, Polyvinylpyrrolidone 9004-32-4, Carboxymethyl cellulose  
 sodium salt 9004-34-6D, Cellulose, derivs., biological studies  
 9004-61-9, Hyaluronic Acid 9004-62-0, Hydroxyethyl cellulose  
 9004-64-2, Hydroxypropyl cellulose 9004-65-3, Hydroxypropylmethyl  
 cellulose 9004-67-5, Methyl cellulose 9004-98-2, Polyethylene glycol  
 oleyl ether 9004-99-3, Myrj 45 9005-32-7, Alginic acid 9005-64-5,  
 Tween 20 9005-65-6, Tween 80 9012-36-6, Agarose 9012-76-4, Chitosan  
 9013-66-5, Glutathione peroxidase 9036-19-5, Polyethylene glycol  
 octylphenyl ether 9043-30-5, Polyethylene glycol isotridecyl ether  
 9054-89-1, Superoxide dismutase 9086-85-5, Poly(hydroxypropyl)  
 methacrylate 10540-29-1, Tamoxifen 11138-66-2, Xanthan 12041-76-8,  
 Dichlorobenzylalcohol 15307-86-5, Diclofenac 15687-27-1, Ibuprofen  
 16409-34-0, Sodium glycodeoxycholate 16690-40-7 18175-45-6, Sodium  
 elaidate 18472-51-0, Chlorhexidine gluconate 18683-91-5, Ambroxol  
 19767-45-4, Mesna 20283-92-5, Rosmarinic acid 20902-45-8,  
 Penicillamine disulfide 21829-25-4, Nifedipine 22071-15-4, Ketoprofen  
 22204-53-1, Naproxen 22494-42-4, Diflunisal 23288-49-5, Probuco  
 25013-16-5, BHA 25014-41-9, Polyacrylonitrile 25249-16-5 25322-68-3,  
 PEG 25429-38-3, Coumaric acid 25655-41-8, Povidone-iodine  
 26570-48-9, Polyethylene glycol-diacrylate 26746-38-3,  
 Di-tert-butylphenol 27306-76-9, Polyethylene glycol cetyl stearyl ether  
 27306-79-2, Polyethylene glycol myristyl ether 29122-68-7, Atenolol  
 29349-22-2, Chlorobenzyl alcohol 33425-76-2 36322-90-4, Piroxicam  
 36413-60-2, Quinic Acid 37640-71-4, Aprindine 53188-07-1, Trolox  
 53584-19-3 55985-32-5, Nicardipine 59227-89-3, Azone 63675-72-9,  
 Nisoldipine 66085-59-4, Nimodipine 68047-06-3, Hydroxytamoxifen  
 68555-46-4 75530-68-6, Nilvadipine 77400-65-8, Asocainol 85261-20-7,  
 Decanoyl N-methylglucamide 87246-72-8 88306-53-0 90522-12-6  
 91729-95-2, Rosmaridiphenol 99716-88-8, Methallylsulfonic acid  
 homopolymer 106392-12-5, Poloxamer 110101-67-2, U74006F 118457-14-0,  
 Nebivolol 121869-32-7 148081-72-5, 1-O-Hexyl-2,3,5-  
 trimethylhydroquinone

RL: MOA (Modifier or additive use); **THU (Therapeutic use)**; BIOL  
 (Biological study); USES (Uses)

(penetrating formulation for topical non-invasive application in vivo)

IT 822-17-3, Sodium linoleate

RL: MOA (Modifier or additive use); **THU (Therapeutic use)**; BIOL  
 (Biological study); USES (Uses)

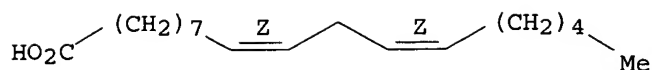
(penetrating formulation for topical non-invasive application in vivo)

RN 822-17-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)-, sodium salt (9CI) (CA INDEX NAME)

Double bond geometry as shown.





● Na

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 24 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:290817 HCAPLUS

DOCUMENT NUMBER: 132:326059

TITLE: Associates of macromolecules and complex aggregates for improved payload and controlled drug delivery

INVENTOR(S): Cevc, Gregor

PATENT ASSIGNEE(S): Idea Innovative Dermale Applikationen GmbH, Germany

SOURCE: PCT Int. Appl., 88 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000024377	A1	20000504	WO 1998-EP6750	19981023
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2309633	AA	20000504	CA 1998-2309633	19981023
AU 9914350	A1	20000515	AU 1999-14350	19981023
AU 765385	B2	20030918		
EP 1039880	A1	20001004	EP 1998-958234	19981023
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9814415	A	20001010	BR 1998-14415	19981023
JP 2002528406	T2	20020903	JP 2000-577988	19981023
RU 2211027	C2	20030827	RU 2000-119757	19981023
NO 2000003287	A	20000823	NO 2000-3287	20000622
HK 1032745	A1	20050812	HK 2001-103359	20010515
PRIORITY APPLN. INFO.:			WO 1998-EP6750	A 19981023

AB This invention describes the principles and procedures suitable for developing, testing, manufacturing, and using combinations of various amphipathic, if necessary modified, macromols. (such as polypeptides, proteins, etc.) or other chain mols. (such as suitable, e.g. partly hydrophobic, polynucleotides or polysaccharides) with the aggregates which comprise a mixture of polar and/or charged amphipathic mols. and form extended surfaces that can be freely suspended or supported. The methods can be utilized for the optimization of aggregates that, after association with chain mols. exerting some activity or a useful function, are suitable for the application in vitro or in vivo, e.g., in the fields of drug

delivery, diagnostics or biocatalysis. As special examples, mixts. of vesicular droplets consisting of lipids loaded (associated) with insulin, interferon, interleukin, nerve growth factor, calcitonin, and an Ig, etc., are described. Thus, ultradeformable and flexible vesicles (Transfersomes) were prepared from soybean phosphatidylcholine 874.4 and sodium cholate 125.6 mg, and pH 7.1 9 mL phosphate buffer. To this suspension (5% total lipid content) was added 0.1, 0.5, 1, 2, 3, or 4 mg/insulin/100 mg total lipid.

IC ICM A61K009-127  
ICS A61K038-28  
CC 63-6 (Pharmaceuticals)  
Section cross-reference(s): 2, 9  
IT Allergy inhibitors  
Analgesics  
Anesthetics  
Anti-Alzheimer's agents  
Anti-inflammatory agents  
Antiarrhythmics  
Antiartherosclerotics  
Antiasthmatics  
Antibacterial agents  
Antibiotics  
Anticoagulants  
Anticonvulsants  
Antidepressants  
Antidiabetic agents  
Antidotes  
Antiemetics  
Antihistamines  
Antimigraine agents  
Antiparkinsonian agents  
Antipsychotics  
Antipyretics  
    **Antirheumatic agents**  
Antiviral agents  
Bacteria (Eubacteria)  
Bronchodilators  
Cardiotonics  
Cholinergic agonists  
Cholinergic antagonists  
Contraceptives  
Cytotoxic agents  
Diuretics  
Fungicides  
Hemostatics  
Hypnotics and Sedatives  
Immunomodulators  
Muscle relaxants  
Narcotics  
Nervous system stimulants  
Neurotransmitter antagonists  
Opioid antagonists  
Parasitocides  
Surfactants  
Tranquilizers  
Tuberculostatics  
Vasoconstrictors  
Vasodilators  
Virus  
Wound healing

(assocs. of macromols. and complex aggregates for improved payload and controlled drug delivery)

IT 57-10-3D, Palmitic acid, sphingosine derivative 57-11-4D, Stearic acid, sphingosine derivative 60-33-3D, Linoleic acid, sphingosine derivative 81-24-3D, TauroCholic acid, monovalent salts 81-25-4D, Cholic acid, monovalent salts 83-44-3D, DeoxyCholic acid, monovalent salts 112-80-1D, Oleic acid, sphingosine derivative 143-07-7D, Lauric acid, sphingosine derivative 143-19-1, Sodium Oleate 151-41-7, Lauryl sulfate 302-95-4, Sodium deoxycholate 360-65-6D, GlycodeoxyCholic acid, monovalent salts 407-41-0D, derivs. 463-40-1D, Linolenic acid, sphingosine derivative 475-31-0D, GlycoCholic acid, monovalent salts 506-30-9D, Arachic acid, sphingosine derivative 506-44-5D, Linolenyl alcohol, sphingosine derivative 516-50-7D, TaurodeoxyCholic acid, monovalent salts 544-63-8D, Myristic acid, sphingosine derivative 629-25-4, Sodium laurate 822-17-3, Sodium linoleate 1118-68-9D, N,N-Dimethylglycine, alky derivs. 1338-39-2, Arlacel 20 1643-20-5, Dodecyldimethylamine oxide 3055-98-9 3055-99-0 6284-40-8D, N-Methylglucamine, alkanoyl derivs. 7347-25-3, Sodium taurate 7747-53-7 9002-92-0, Polyethylene glycol lauryl ether 9004-10-8, Insulin, biological studies 9004-81-3, Polyethylene glycol laurate 9004-96-0, Polyethylene glycol oleate 9004-98-2, Polyethylene glycol oleyl ether 9004-99-3, Myrj 45 9005-64-5, Tween 20 9005-65-6, Tween 80 9036-19-5, Polyethylene glycol octylphenyl ether 9061-61-4, Nerve growth factor 16409-34-0, Sodium glycodeoxycholate 18175-45-6, Sodium elaidate 25322-68-3D, Polyethylene glycol, acyl ethers 27306-79-2, Polyethylene glycol myristyl ether 37449-90-4D, oleoyl derivs. 50546-45-7 51855-11-9 85261-20-7, Decanoyl N-Methylglucamide 87246-72-8

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)  
(assocs. of macromols. and complex aggregates for improved payload and controlled drug delivery)

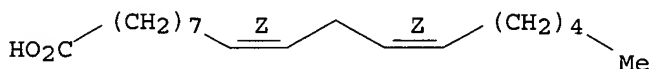
IT 60-33-3D, Linoleic acid, sphingosine derivative 822-17-3, Sodium linoleate

RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)  
(assocs. of macromols. and complex aggregates for improved payload and controlled drug delivery)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

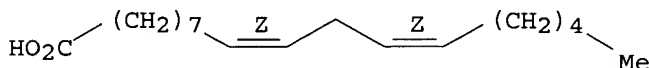
Double bond geometry as shown.



RN 822-17-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)-, sodium salt (9CI) (CA INDEX NAME)

Double bond geometry as shown.



● Na

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 25 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:397930 HCAPLUS

DOCUMENT NUMBER: 136:374807

TITLE: Cosmetic or pharmaceutical composition based on lipoic  
acid and pyruvic acid

INVENTOR(S): Gianfranco de Paoli, Ambrosi

PATENT ASSIGNEE(S): General Topics S.R.L., Italy

SOURCE: Ital., 20 pp.  
CODEN: ITXXBY

DOCUMENT TYPE: Patent

LANGUAGE: Italian

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IT 1299623	B1	20000324	IT 1998-BS10	19980223
PRIORITY APPLN. INFO.:			IT 1998-BS10	19980223
AB The invention concerns a composition for cosmetic or pharmaceutical use which contains as active ingredients at least lipoic acid (both reduced form and dehydrolipoic acid) and pyruvic acid, their salts, esters, and amides and stereoisomers. Each may be present in amts. from 0.0001 to 90% weight/weight				
IC ICM A61K				
CC 63-6 (Pharmaceuticals)				
Section cross-reference(s): 62				
IT Acne				
Alopecia				
Cosmetics				
Drug delivery systems				
Keloid				
Keratosis				
Lupus erythematosus				
Molecular weight distribution				
Osteoarthritis				
Psoriasis				
Rheumatoid arthritis				
Seborrhea				
Stereoisomers				
(cosmetic or pharmaceutical composition based on lipoic acid and pyruvic acid)				
IT 50-21-5, 2-Hydroxypropanoic acid, biological studies 50-81-7, Ascorbic acid, biological studies 52-90-4, Cysteine, biological studies 56-40-6, Glycine, biological studies 56-41-7, Alanine, biological studies 56-45-1, Serine, biological studies 56-84-8, Aspartic acid, biological studies 56-85-9, Glutamine, biological studies 56-86-0, Glutamic acid, biological studies 56-87-1, Lysine, biological studies 57-10-3, Palmitic acid, biological studies 57-11-4, Octadecanoic acid, biological studies 58-85-5, Biotin. 59-30-3, Folic acid, biological studies 59-43-8, Thiamine, biological studies 59-67-6, Niacin, biological studies 60-00-4, Ethylenediaminetetraacetic acid, biological studies 60-18-4, Tyrosine, biological studies 60-33-3, Linoleic acid, biological studies 61-90-5, Leucine, biological studies 63-68-3, Methionine, biological studies 63-91-2, Phenylalanine, biological studies 65-23-6, Pyridoxine 66-72-8, Pyridoxal 68-26-8, Retinol 69-72-7, 2-Hydroxybenzoic acid, biological studies 70-47-3, Asparagine, biological studies 71-00-1, Histidine, biological studies 72-18-4, Valine, biological studies 72-19-5, Threonine, biological				

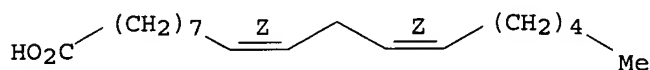
studies 73-22-3, Tryptophan, biological studies 73-32-5, Isoleucine, biological studies 74-79-3, Arginine, biological studies 79-14-1, Hydroxyethanoic acid, biological studies 79-83-4, Pantothenic acid 81-13-0, Panthenol 83-88-5, Riboflavin, biological studies 87-69-4, 2,3-Dihydroxybutanedioic acid, biological studies 98-92-0, Nicotinamide 105-45-3 107-35-7, Taurine 112-80-1, Oleic acid, biological studies 114-07-8, Erythromycin 116-31-4, Retinaldehyde 123-31-9, Hydroquinone, biological studies 127-17-3, Pyruvic acid, biological studies 127-17-3D, Pyruvic acid, derivs. 141-97-9 143-07-7, Lauric acid, biological studies 147-85-3, Proline, biological studies 150-13-0 153-18-4, Rutin 302-79-4, Retinoic acid 373-49-9, Palmitoleic acid 443-48-1, Metronidazol 463-40-1, Linolenic acid 464-92-6, Asiatic acid 473-81-4, 2,3-Dihydroxypropanoic acid 506-32-1, Arachidonic acid 526-95-4, Gluconic acid 541-50-4, biological studies 544-63-8, Myristic acid, biological studies 544-64-9, Myristoleic acid 557-59-5, Lignoceric acid 600-15-7, 2-Hydroxybutanoic acid 600-22-6 617-35-6 693-72-1, Vaccenic acid 1200-22-2, Lipoic acid 1200-22-2D, Lipoic acid, derivs. 3380-34-5, Triclosan 3416-24-8, Glucosamine 6556-12-3, Glucuronic acid 7235-40-7,  $\beta$  Carotene 7512-17-6, Acetylglucosamine 9004-61-9, Hyaluronic acid 10118-90-8, Minocycline 16830-15-2, Asiaticoside 18323-44-9, Clindamycin 18449-41-7, Madecassic acid 29204-02-2, Gadoleic acid 34540-22-2, Madecassoside 38882-78-9 55306-03-1, Sericic acid 55306-04-2, Sericoside  
 RL: COS (Cosmetic use); PEP (Physical, engineering or chemical process); PYP (Physical process); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)  
 (cosmetic or pharmaceutical composition based on lipoic acid and pyruvic acid)

IT 60-33-3, Linoleic acid, biological studies 693-72-1, Vaccenic acid  
 RL: COS (Cosmetic use); PEP (Physical, engineering or chemical process); PYP (Physical process); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)  
 (cosmetic or pharmaceutical composition based on lipoic acid and pyruvic acid)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

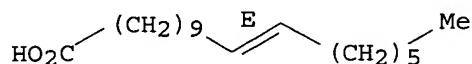
Double bond geometry as shown.



RN 693-72-1 HCAPLUS

CN 11-Octadecenoic acid, (11E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 26 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:33522 HCAPLUS

DOCUMENT NUMBER: 132:83669

TITLE: Topical plaster with nonsteroidal  
**antirheumatics** bearing acidic groups

INVENTOR(S): Mueller, Walter  
 PATENT ASSIGNEE(S): LTS Lohmann Therapie-Systeme G.m.b.H., Germany  
 SOURCE: Ger. Offen., 6 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19830649	A1	20000113	DE 1998-19830649	19980709
DE 19830649	C2	20030410		
CA 2336732	AA	20000120	CA 1999-2336732	19990706
WO 2000002539	A1	20000120	WO 1999-EP4686	19990706
W: AU, BR, CA, CN, CZ, HU, IL, IN, JP, KR, MX, NZ, PL, RU, TR, US, ZA				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9949075	A1	20000201	AU 1999-49075	19990706
AU 750861	B2	20020801		
BR 9911981	A	20010327	BR 1999-11981	19990706
EP 1094796	A1	20010502	EP 1999-932827	19990706
EP 1094796	B1	20031015		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
TR 200100022	T2	20010521	TR 2001-200100022	19990706
JP 2002520270	T2	20020709	JP 2000-558799	19990706
NZ 509216	A	20020726	NZ 1999-509216	19990706
CZ 290992	B6	20021113	CZ 2001-118	19990706
RU 2212232	C2	20030920	RU 2001-102045	19990706
AT 251900	E	20031115	AT 1999-932827	19990706
ES 2212584	T3	20040716	ES 1999-932827	19990706
TW 577760	B	20040301	TW 1999-88111648	19990709
ZA 2001000172	A	20010718	ZA 2001-172	20010108
US 6676962	B1	20040113	US 2001-743124	20010309
PRIORITY APPLN. INFO.:				
			DE 1998-19830649	A 19980709
			WO 1999-EP4686	W 19990706

AB A topical plaster for local antirheumatic administration has a polyacrylate adhesive matrix bearing free CO<sub>2</sub>H groups and no OH groups, crosslinked with multivalent metal ions; the matrix contains a nonsteroidal antirheumatic drug having a free CO<sub>2</sub>H group, and a fatty acid as plasticizer and permeation enhancer. This matrix is mounted on an inert fabric backing layer which is elastic in ≥1 direction, and is covered on the opposite side by a removable, protective release liner. The matrix does not demonstrate cold flux, shows good adhesion, and allows ample release of the active agent. Thus, a combination of Durotak 387-2251 adhesive (solids content 48 weight%) 500, oleic acid 58, and ketoprofen 26 g was homogenized with 90 g 4% Al acetylacetonate solution, spread on a siliconized film to a surface d. after drying of 80 g/m<sup>2</sup>, laminated onto elastic polyester fabric, and cut into individual plasters.

IC ICM A61L015-44  
 ICS A61K031-19

CC 63-6 (Pharmaceuticals)

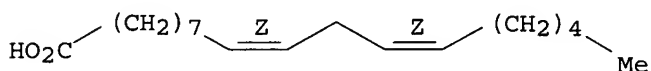
ST nonsteroidal **antirheumatic** topical plaster; ketoprofen topical plaster

IT Permeation enhancers  
 Plasticizers  
 (fatty acids; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)

IT Crosslinking agents

- (multivalent metal ions; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)
- IT **Antirheumatic agents**  
(nonsteroidal; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)
- IT **Medical goods**  
(plasters; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)
- IT **Fatty acids, biological studies**  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(plasticizers and permeation enhancers; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)
- IT **Adhesives**  
(polyacrylate; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)
- IT **Metals, biological studies**  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(polyvalent, crosslinking agents; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)
- IT 25134-51-4, 2-Ethylhexyl acrylate/acrylic acid copolymer 35239-19-1  
253797-69-2, Duro-Tak 387-2251  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(adhesive matrix; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)
- IT 79-10-7D, Acrylic acid, esters, polymers with acrylic acid, crosslinked  
79-10-7D, Acrylic acid, polymers with acrylate esters, crosslinked  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(adhesives; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)
- IT 13963-57-0, Aluminum acetylacetonate  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(crosslinking agent; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)
- IT 60-33-3, Linoleic acid, biological studies 112-80-1, Oleic acid, biological studies 463-40-1, Linolenic acid  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(plasticizer and permeation enhancer; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)
- IT 5104-49-4, Flurbiprofen 15687-27-1, Profen 15687-27-1, Ibuprofen  
22071-15-4, Ketoprofen 22204-53-1, Naproxen  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)
- IT 60-33-3, Linoleic acid, biological studies  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(plasticizer and permeation enhancer; topical plaster with nonsteroidal **antirheumatics** bearing acidic groups)
- RN 60-33-3 HCAPLUS
- CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS

## RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L179 ANSWER 27 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:446732 HCAPLUS

DOCUMENT NUMBER: 125:96100

TITLE: Monofunctional and/or polyfunctional polylysine  
conjugates for treatment of neural disorders,  
autoimmune diseases, and proliferative diseases

INVENTOR(S): Geffard, Michel

PATENT ASSIGNEE(S): Fr.

SOURCE: PCT Int. Appl., 44 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9615810	A1	19960530	WO 1995-FR1517	19951117
W: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
FR 2727117	A1	19960524	FR 1994-13861	19941118
FR 2727117	B1	19970221		
CA 2205557	AA	19960530	CA 1995-2205557	19951117
AU 9641811	A1	19960617	AU 1996-41811	19951117
EP 792167	A1	19970903	EP 1995-940329	19951117
EP 792167	B1	20010627		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 10511643	T2	19981110	JP 1995-516622	19951117
AT 202487	E	20010715	AT 1995-940329	19951117
ES 2161915	T3	20011216	ES 1995-940329	19951117
PT 792167	T	20011228	PT 1995-940329	19951117
US 6114388	A	20000905	US 1997-836199	19970709
GR 3036710	T3	20011231	GR 2001-401567	20010926
PRIORITY APPLN. INFO.:			FR 1994-13861	A 19941118
			WO 1995-FR1517	W 19951117

AB The use of polylysine for preparing pharmaceutical compns. or combinations useful for treating neural degeneration, infectious, traumatic and toxic neuropathies, auto-immune degenerative diseases and proliferative diseases, is disclosed. Polylysine conjugates are also disclosed.

IC ICM A61K047-48

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1

IT **Lupus erythematosus**(disseminated; monofunctional and/or polyfunctional polylysine  
conjugates for treatment of neural disorders, autoimmune diseases, and  
proliferative diseases)

IT 50-81-7DP, Vitamin C, conjugates with polylysine 51-45-6DP, Histamine,  
conjugates with polylysine 51-84-3DP, Acetylcholine, conjugates with  
polylysine 52-90-4DP, Cysteine, conjugates with polylysine 56-12-2DP,  
 $\gamma$ -Aminobutyric acid, conjugates with polylysine 56-69-9DP,  
5-Hydroxytryptophan, conjugates with polylysine 57-10-3DP, Palmitic  
acid, conjugates with polylysine 57-11-4DP, Stearic acid, conjugates  
with polylysine 57-83-0DP, Progesterone, conjugates with polylysine



57-88-5DP, Cholesterol, conjugates with polylysine 59-02-9DP,  $\alpha$ -Tocopherol, conjugates with polylysine 59-92-7DP, conjugates with polylysine 60-33-3DP,  $\alpha$ -Linoleic acid, conjugates with polylysine 63-68-3DP, Methionine, conjugates with polylysine 71-00-1DP, Histidine, conjugates with polylysine 73-22-3DP, Tryptophan, conjugates with polylysine 107-35-7DP, Taurine, conjugates with polylysine 112-80-1DP, Oleic acid, conjugates with polylysine 123-99-9DP, Azelaic acid, conjugates with polylysine 143-07-7DP, Lauric acid, conjugates with polylysine 302-79-4DP, Retinoic acid, conjugates with polylysine 362-07-2DP, 2-Methoxyestradiol, conjugates with polylysine 373-49-9DP, Palmitoleic acid, conjugates with polylysine 544-63-8DP, Myristic acid, conjugates with polylysine 608-07-1DP, 5-Methoxytryptamine, conjugates with polylysine 6027-13-0DP, Homocysteine, conjugates with polylysine 25104-18-1DP, Polylysine, conjugates 38000-06-5DP, Polylysine, conjugates 68000-92-0DP, Farnesylcysteine, conjugates with polylysine

RL: SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL

(Biological study); PREP (Preparation); USES (Uses)

(monofunctional and/or polyfunctional polylysine conjugates for treatment of neural disorders, autoimmune diseases, and proliferative diseases)

IT 60-33-3DP,  $\alpha$ -Linoleic acid, conjugates with polylysine

RL: SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL

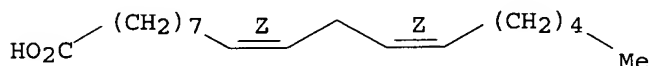
(Biological study); PREP (Preparation); USES (Uses)

(monofunctional and/or polyfunctional polylysine conjugates for treatment of neural disorders, autoimmune diseases, and proliferative diseases)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 28 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:472730 HCAPLUS

DOCUMENT NUMBER: 125:194207

TITLE: Fatty acid modified diet - is there any diet for rheumatism?

AUTHOR(S): Brunner, E.

CORPORATE SOURCE: Univ. Innsbruck, Innsbruck, A-6020, Austria

SOURCE: Ernaehrung (Vienna) (1996), 20(6), 356-358

CODEN: ERNRDC; ISSN: 0250-1554

PUBLISHER: Fachzeitschriftenverlagsgesellschaft mbH

DOCUMENT TYPE: Journal; General Review

LANGUAGE: German

AB A review with no listed refs. The importance of nutrition in the treatment of chronic polyarthrititis is discussed. Decrease of the supply of arachidonic acid, inhibition of eicosanoid formation by fatty acids of fish oil, and the decrease of oxidation of arachidonic acid by antioxidants is recommended.

CC 18-0 (Animal Nutrition)

Section cross-reference(s): 15

IT Arthrititis

(rheumatoid, Fatty acid modified diet for rheumatism)

IT 60-33-3, Linolic acid, biological studies 506-32-1, Arachidonic

acid

RL: BPR (Biological process); BSU (Biological study, unclassified);

THU (Therapeutic use); BIOL (Biological study); PROC (Process);

USES (Uses)

(Fatty acid modified diet for rheumatism)

IT 60-33-3, Linolic acid, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified);

THU (Therapeutic use); BIOL (Biological study); PROC (Process);

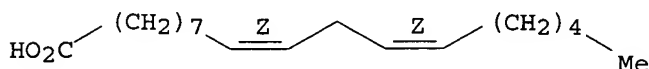
USES (Uses)

(Fatty acid modified diet for rheumatism)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 29 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:102541 HCAPLUS

DOCUMENT NUMBER: 124:156001

TITLE: Pharmaceutical compositions containing fatty acid derivatives of non-steroidal anti-inflammatory drugs

INVENTOR(S): Horrobin, David F.; Knowles, Philip

PATENT ASSIGNEE(S): Scotia Holdings PLC, UK

SOURCE: Can. Pat. Appl., 16 pp.

CODEN: CPXXEB

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2143604	AA	19950902	CA 1995-2143604	19950228
US 5603959	A	19970218	US 1995-392628	19950222
AU 9513480	A1	19950907	AU 1995-13480	19950227
AU 703550	B2	19990325		
FI 9500910	A	19950902	FI 1995-910	19950228
NO 9500785	A	19950904	NO 1995-785	19950228
JP 07304688	A2	19951121	JP 1995-40120	19950228
ZA 9501661	A	19951208	ZA 1995-1661	19950228
EP 675103	A2	19951004	EP 1995-301315	19950301
EP 675103	A3	19970326		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE

CN 1117484 A 19960228 CN 1995-102755 19950301

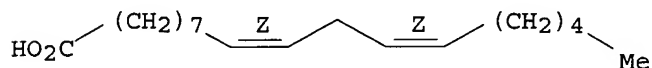
PRIORITY APPLN. INFO.: GB 1994-3857 A 19940301

AB Pharmaceutical comps. contain non-steroidal anti-inflammatory drugs (NSAID) in the form of a compound with essential fatty acids or essential fatty acid alcs. The comps. are used for the prophylaxis and treatment of rheumatoid arthritis, osteoarthritis and related disorders; dementia, including Alzheimer's disease; or any other inflammatory or other conditions where NSAID is used. A solution of 1.14 g ibuprofen, 1.32 g z,z,z-octadeca-6,9,12-trienol, 0.61 g 4-dimethylaminopyridine, and 1.13 g dicyclohexylcarbodiimide in 20 mL dichloromethane was stirred at room temperature under N for 20 h, then it was washed with HCl, NaHCO<sub>3</sub>, and dried. After drying, the solvent was evaporated and the residue purified to obtain

z,z,z-octadeca-6,9,12-trienyl-2-methyl-4'-(2-methylpropyl)phenylacetate (I, ibuprofen derivative of  $\gamma$ -linolenol). Capsules contained 250, 500, and 750 mg I.

- IC ICM A61K031-60  
ICS A61K031-405; A61K031-20; A61K031-19; A61K047-26; A61K047-24;  
A61K047-12
- CC 63-6 (Pharmaceuticals)  
Section cross-reference(s): 1
- IT Inflammation inhibitors  
(**antirheumatics**, pharmaceutical compns. containing fatty acid  
derivs. of non-steroidal anti-inflammatory drugs)
- IT 53-86-1DP, Indomethacin, derivs. with fatty acids **60-33-3DP**,  
 $\alpha$ -Linoleic acid, derivs. with inflammation inhibitors 69-72-7DP,  
Salicylic acid, derivs. with fatty acids 506-26-3DP,  $\gamma$ -Linolenic  
acid, derivs. with inflammation inhibitors 506-32-1DP, Arachidonic acid,  
derivs. with inflammation inhibitors 1783-84-2DP, Di-homo- $\gamma$ -  
linolenic acid, derivs. with inflammation inhibitors 2091-25-0DP,  
Adrenic acid, derivs. with inflammation inhibitors 15687-27-1DP,  
Ibuprofen, derivs. with fatty acids 20290-75-9DP, Stearidonic acid,  
derivs. with inflammation inhibitors 25167-62-8DP, Docosahexaenoic acid,  
derivs. with inflammation inhibitors 25378-27-2DP, Eicosapentaenoic  
acid, derivs. with inflammation inhibitors 25448-00-4DP,  
Docosapentaenoic acid, derivs. with inflammation inhibitors  
38194-50-2DP, Sulindac, derivs. with fatty acids 56529-85-2P  
173386-76-0P 173386-77-1P 173386-78-2P  
RL: **BAC (Biological activity or effector, except adverse)**; BSU  
(Biological study, unclassified); SPN (Synthetic preparation); **THU**  
(**Therapeutic use**); BIOL (Biological study); PREP (Preparation); USES  
(Uses)  
(pharmaceutical compns. containing fatty acid derivs. of non-steroidal  
anti-inflammatory drugs)
- IT **60-33-3DP**,  $\alpha$ -Linoleic acid, derivs. with inflammation  
inhibitors  
RL: **BAC (Biological activity or effector, except adverse)**; BSU  
(Biological study, unclassified); SPN (Synthetic preparation); **THU**  
(**Therapeutic use**); BIOL (Biological study); PREP (Preparation); USES  
(Uses)  
(pharmaceutical compns. containing fatty acid derivs. of non-steroidal  
anti-inflammatory drugs)
- RN 60-33-3 HCAPLUS  
CN 9,12-Octadecadienoic acid (9Z,12Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 30 OF 58 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1994:604062 HCAPLUS  
DOCUMENT NUMBER: 121:204062  
TITLE: Beneficial effect of eicosapentaenoic and  
docosahexaenoic acids in the management of systemic  
lupus erythematosus and its relationship to the  
cytokine network  
AUTHOR(S): Das, U. N.  
CORPORATE SOURCE: Dep. Med., Nizam's Inst. Med. Sci., Hyderabad, 500482,  
India

SOURCE: Prostaglandins, Leukotrienes and Essential Fatty Acids (1994), 51(3), 207-13  
CODEN: PLEAEU; ISSN: 0952-3278

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Systemic lupus erythematosus (SLE) is a chronic inflammatory condition characterized by arthritis, cutaneous rash, vasculitis, and involvement of central nervous system, renal and cardiopulmonary manifestations. Abnormalities in the cytokine network is believed to be involved in the pathobiol. of this condition. The n-3 fatty acids such as eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) can suppress T-cell proliferation and the production of interleukin-1, interleukin-2, and tumor necrosis factor by these cells both in vitro and in vivo. Oral supplementation of EPA and DHA induced prolonged remission of SLE in 10 consecutive patients without any side-effects. These results suggest that n-3 fatty acids, EPA and DHA, are useful in the management of SLE and possibly, other similar collagen vascular diseases.

CC 18-3 (Animal Nutrition)

IT **Lupus erythematosus**  
(beneficial effect of eicosapentaenoic and docosahexaenoic acids in the management of systemic lupus erythematosus)

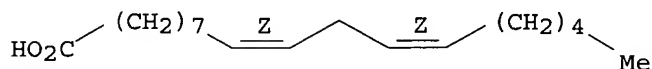
IT 60-33-3, Linoleic acid, biological studies 1783-84-2, Dihomogamma-linolenic acid 7324-41-6, 8,11,14-Eicosatrienoic acid 32839-18-2, Docosahexaenoic acid 32839-30-8, Eicosapentaenoic acid  
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)  
(beneficial effect of eicosapentaenoic and docosahexaenoic acids in the management of systemic lupus erythematosus)

IT 60-33-3, Linoleic acid, biological studies  
RL: **BAC (Biological activity or effector, except adverse)**; BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)  
(beneficial effect of eicosapentaenoic and docosahexaenoic acids in the management of systemic lupus erythematosus)

RN 60-33-3 HCAPLUS

CN 9,12-Octadecadienoic acid (9Z,12Z) - (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L179 ANSWER 31 OF 58 MEDLINE on STN DUPLICATE 2

ACCESSION NUMBER: 1999022039 MEDLINE

DOCUMENT NUMBER: PubMed ID: 9805223

TITLE: Health aspects of fish and n-3 polyunsaturated fatty acids from plant and marine origin.

AUTHOR: de Deckere E A; Korver O; Verschuren P M; Katan M B

CORPORATE SOURCE: Unilever Nutrition Centre, Unilever Research Vlaardingen, The Netherlands.

SOURCE: European journal of clinical nutrition, (1998 Oct) 52 (10) 749-53. Ref: 58  
Journal code: 8804070. ISSN: 0954-3007.

PUB. COUNTRY: ENGLAND: United Kingdom  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199901  
 ENTRY DATE: Entered STN: 19990115  
 Last Updated on STN: 19990115  
 Entered Medline: 19990107

## ABSTRACT:

An expert workshop reviewed the health effects of n-3 polyunsaturated fatty acids (PUFA), and came to the following conclusions. 1. Consumption of fish may reduce the risk of coronary heart disease (CHD). People at risk for CHD are therefore advised to eat fish once a week. The n-3 PUFA in fish are probably the active agents. People who do not eat fish should consider obtaining 200 mg of very long chain n-3 PUFA daily from other sources. 2. Marine n-3 PUFA somewhat alleviate the symptoms of rheumatoid arthritis. 3. There is incomplete but growing evidence that consumption of the plant n-3 PUFA, alpha-linolenic acid, reduces the risk of CHD. An intake of 2 g/d or 1% of energy of alpha-linolenic acid appears prudent. 4. The ratio of total n-3 over n-6 PUFA (linoleic acid) is not useful for characterising foods or diets because plant and marine n-3 PUFA show different effects, and because a decrease in n-6 PUFA intake does not produce the same effects as an increase in n-3 PUFA intake. Separate recommendations for alpha-linolenic acid, marine n-3 PUFA and linoleic acid are preferred.

CONTROLLED TERM: Animals  
 Arthritis, Rheumatoid: DH, diet therapy  
 \*Coronary Disease: PC, prevention & control  
 \*Fatty Acids, Omega-3: AD, administration & dosage  
 \*Fishes  
 \*Health Promotion  
 Humans  
 Linoleic Acid: AD, administration & dosage  
 Nutrition Policy  
 \*Plants, Edible  
 alpha-Linolenic Acid: AD, administration & dosage  
 CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid); 463-40-1 (alpha-Linolenic Acid)  
 CHEMICAL NAME: 0 (Fatty Acids, Omega-3)

L179 ANSWER 32 OF 58 MEDLINE on STN  
 ACCESSION NUMBER: 2005622548 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 16303936  
 TITLE: Systemic omega-6 essential fatty acid treatment and pge1  
 tear content in Sjogren's syndrome patients.  
 AUTHOR: Aragona Pasquale; Bucolo Claudio; Spinella Rosaria;  
 Giuffrida Sebastiano; Ferreri Giuseppe  
 CORPORATE SOURCE: Policlinic University Hospital, Department of Surgical  
 Specialties, Section of Ophthalmology and Refractive  
 Surgery, University of Messina, Messina, Italy..  
 paragona@unime.it  
 SOURCE: Investigative ophthalmology & visual science, (2005 Dec) 46  
 (12) 4474-9.  
 Journal code: 7703701. ISSN: 0146-0404.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 (RANDOMIZED CONTROLLED TRIAL)  
 (CLINICAL TRIAL)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals

ENTRY MONTH: 200601  
ENTRY DATE: Entered STN: 20051124  
Last Updated on STN: 20060112  
Entered Medline: 20060111

## ABSTRACT:

**PURPOSE:** To determine the effect of oral omega-6 essential fatty acids on PGE(1) tear content and signs and symptoms of ocular discomfort in patients with Sjogren's syndrome (SS). **METHODS:** This randomized, double-masked, controlled, clinical trial involved 40 patients with primary SS, divided into two groups: group 1: 20 patients (18 women, 2 men; mean age, 36.9 +/- 7.9 years [SD]) treated for 1 month with linoleic acid (LA; 112 mg), and gamma-linolenic acid (GLA; 15 mg) administered twice daily; group 2: 20 patients (19 women, 1 man; mean age, 36.3 +/- 5.5 years) treated twice daily with placebo. Patients underwent three examinations: at baseline (T0), after 1 month of treatment (T1), and 15 days after suspension of treatment (T2). At each examination, the following tests were performed: tear sampling (2 microL) from the inferior meniscus, tear break-up time (BUT), fluorescein stain of the ocular surface, and tear basal secretion. A symptom score was also obtained at each examination. PGE1 was evaluated by enzyme immunoassay. The primary efficacy variable was PGE1 content of tears. **RESULTS:** The tear PGE1 levels were significantly increased in group 1 at T1 versus T0 (PGE1 level: T0, 44 +/- 5.4 ng/mL; T1, 58.3 +/- 5.5 ng/mL; P < 0.01 versus T0 and group 2 at T1). At examination T2, a statistically significant reduction of PGE1 levels toward baseline was observed (45.7 +/- 5.2 ng/mL; P < 0.01 versus T1). A statistically significant reduction of symptom score was observed in group 1 at examination T1 (P < 0.01 versus T0 and group 2 score). At examination T2, the symptom score was significantly higher than T1 but remained lower than T0. The corneal fluorescein stain in group 1 showed a statistically significant improvement at examination T1 versus T0 and group 2 (P < 0.01). This improvement was also present at T2 (P < 0.02). No statistically significant differences were found for the other tests. No statistically significant changes were observed in the patients in group 2 at all examination time points. **CONCLUSIONS:** Omega-6 administration increases the PGE1 levels in tears of patients with SS and improves ocular surface signs and symptoms of ocular discomfort.

**CONTROLLED TERM:** Check Tags: Female; Male  
Administration, Oral  
Adult  
\*Alprostadil: ME, metabolism  
Cornea: DE, drug effects  
Cornea: ME, metabolism  
Double-Blind Method  
Fluorescein: DU, diagnostic use  
Fluorophotometry  
Humans  
Immunoenzyme Techniques  
\*Linoleic Acid: AD, administration & dosage  
Research Support, Non-U.S. Gov't  
\*Sjogren's Syndrome: DT, drug therapy  
Sjogren's Syndrome: ME, metabolism  
Tears: CH, chemistry  
\*Tears: ME, metabolism  
\*gamma-Linolenic Acid: AD, administration & dosage  
**CAS REGISTRY NO.:** 2197-37-7 (Linoleic Acid); 2321-07-5 (Fluorescein);  
506-26-3 (gamma-Linolenic Acid); 745-65-3 (Alprostadil)

L179 ANSWER 33 OF 58 MEDLINE on STN  
ACCESSION NUMBER: 2004489993 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 15458276  
TITLE: Effects of n-3 fatty acids on serum interleukin-6, tumour

necrosis factor-alpha and soluble tumour necrosis factor receptor p55 in active rheumatoid arthritis.

AUTHOR: Sundrarjun T; Komindr S; Archararit N; Dahlan W; Puchaiwatananon O; Angthararak S; Udomsuppayakul U; Chuncharunee S

CORPORATE SOURCE: Research Centre, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, Bangkok, Thailand.

SOURCE: Journal of international medical research, (2004 Sep-Oct) 32 (5) 443-54.  
Journal code: 0346411. ISSN: 0300-0605.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
(RANDOMIZED CONTROLLED TRIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200412

ENTRY DATE: Entered STN: 20041002  
Last Updated on STN: 20041229  
Entered Medline: 20041228

## ABSTRACT:

We investigated the effects of a low n-6 fatty acid (FA) diet supplemented with fish oil on serum pro-inflammatory cytokine concentrations and clinical variables in patients with active rheumatoid arthritis (RA). Sixty patients were randomly assigned to receive a diet low in n-6 FAs and n-3 FAs supplement (fish oil group), a diet low in n-6 FAs and placebo (placebo group), or no special diet or intervention (control group). Serum cytokines and clinical and biochemical variables were evaluated at baseline and various timepoints. At week 18 the fish oil group had significant reductions in linoleic acid, C-reactive protein (CRP) and soluble tumour necrosis factor receptor p55 (sTNF-R p55), and significant elevations in eicosapentaenoic acid and docosahexaenoic acid compared with baseline. There were no significant differences in the clinical variables between the three groups. At week 24 there were significant reductions in interleukin-6 and TNF-alpha in the fish oil and placebo groups. Supplementation with n-3 FA and a low n-6 FA intake decreased serum sTNF-R p55 and CRP levels in patients with RA.

CONTROLLED TERM: Check Tags: Female; Male

- \*Arthritis, Rheumatoid
- Arthritis, Rheumatoid: BL, blood
- Arthritis, Rheumatoid: DT, drug therapy
- C-Reactive Protein: ME, metabolism
- Dietary Fats
- Dietary Supplements
- Double-Blind Method
- Fatty Acids, Omega-3: AD, administration & dosage
- \*Fatty Acids, Omega-3: ME, metabolism
- \*Fatty Acids, Omega-3: TU, therapeutic use
- Fatty Acids, Omega-6: ME, metabolism
- Fish Oils: AD, administration & dosage
- Humans
- \*Interleukin-6: BL, blood
- Linoleic Acid: BL, blood
- Middle Aged
- Placebos
- \*Receptors, Tumor Necrosis Factor, Type I: BL, blood
- Research Support, Non-U.S. Gov't
- Treatment Outcome
- \*Tumor Necrosis Factor-alpha: ME, metabolism

CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid); 9007-41-4 (C-Reactive Protein)

CHEMICAL NAME: 0 (Dietary Fats); 0 (Fatty Acids, Omega-3); 0 (Fatty Acids,

Omega-6); 0 (Fish Oils); 0 (Interleukin-6); 0 (Placebos); 0 (Receptors, Tumor Necrosis Factor, Type I); 0 (Tumor Necrosis Factor-alpha)

L179 ANSWER 34 OF 58 MEDLINE on STN  
 ACCESSION NUMBER: 2002224515 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 11962753  
 TITLE: Effects of the antirheumatic remedy hox alpha--a new stinging nettle leaf extract--on matrix metalloproteinases in human chondrocytes in vitro.  
 AUTHOR: Schulze-Tanzil G; de Souza P; Behnke B; Klingelhoef S; Scheid A; Shakibaei M  
 CORPORATE SOURCE: Institute of Anatomy, Freie Universitat Berlin, Germany.  
 SOURCE: Histology and histopathology, (2002 Apr) 17 (2) 477-85. Journal code: 8609357. ISSN: 0213-3911.  
 PUB. COUNTRY: Spain  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200210  
 ENTRY DATE: Entered STN: 20020419  
 Last Updated on STN: 20021023  
 Entered Medline: 20021022

**ABSTRACT:**

Inflammatory joint diseases are characterized by enhanced extracellular matrix degradation which is predominantly mediated by cytokine-stimulated upregulation of matrix metalloproteinase (MMP) expression. Besides tumour necrosis factor-alpha (TNF-alpha), Interleukin-1beta (IL-1beta) produced by articular chondrocytes and synovial macrophages, is the most important cytokine stimulating MMP expression under inflammatory conditions. Blockade of these two cytokines and their downstream effectors are suitable molecular targets of antirheumatic therapy. Hox alpha is a novel stinging nettle (*Urtica dioica/Urtica urens*) leaf extract used for treatment of rheumatic diseases. The aim of the present study was to clarify the effects of Hox alpha and the monosubstance 13-HOTrE (13-Hydroxyoctadecatrienic acid) on the expression of matrix metalloproteinase-1, -3 and -9 proteins (MMP-1, -3, -9). Human chondrocytes were cultured on collagen type-II-coated petri dishes, exposed to IL-1beta and treated with or without Hox alpha and 13-HOTrE. A close analysis by immunofluorescence microscopy and western blot analysis showed that Hox alpha and 13-HOTrE significantly suppressed IL-1beta-induced expression of matrix metalloproteinase-1, -3 and -9 proteins on the chondrocytes in vitro. The potential of Hox alpha and 13-HOTrE to suppress the expression of matrix metalloproteinases may explain the clinical efficacy of stinging nettle leaf extracts in treatment of rheumatoid arthritis. These results suggest that the monosubstance 13-HOTrE is one of the more active antiinflammatory substances in Hox alpha and that Hox alpha may be a promising remedy for therapy of inflammatory joint diseases.

CONTROLLED TERM: \*Anti-Inflammatory Agents, Non-Steroidal: PD, pharmacology  
**Arthritis, Rheumatoid**  
 Cartilage, Articular: CY, cytology  
 Cells, Cultured  
 Chondrocytes: CY, cytology  
 Chondrocytes: DE, drug effects  
 \*Chondrocytes: EN, enzymology  
 \*Gelatinase B: BI, biosynthesis  
 Humans  
 Interleukin-1: PD, pharmacology  
 \*Interstitial Collagenase: BI, biosynthesis  
 \*Linoleic Acids: PD, pharmacology  
 Plant Extracts: PD, pharmacology



Plant Leaves  
 Research Support, Non-U.S. Gov't  
 Rheumatic Diseases  
 \*Stromelysin 1: BI, biosynthesis  
 \*Urtica dioica

CHEMICAL NAME: 0 (13-hydroxyoctadecatrienic acid); 0 (Anti-Inflammatory Agents, Non-Steroidal); 0 (Interleukin-1); 0 (Linoleic Acids); 0 (Plant Extracts); EC 3.4.24.17 (Stromelysin 1); EC 3.4.24.35 (Gelatinase B); EC 3.4.24.7 (Interstitial Collagenase)

L179 ANSWER 35 OF 58 MEDLINE on STN  
 ACCESSION NUMBER: 2002028186 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 11137570  
 TITLE: Bioactive fatty acids: role in bone biology and bone cell function.  
 AUTHOR: Watkins B A; Lippman H E; Le Bouteiller L; Li Y; Seifert M F  
 CORPORATE SOURCE: Department of Food Science, Lipid Chemistry and Molecular Biology Laboratory, Purdue University, 47907, West Lafayette, IN, USA.  
 SOURCE: Progress in lipid research, (2001 Jan-Mar) 40 (1-2) 125-48. Ref: 230  
 Journal code: 7900832. ISSN: 0163-7827.  
 PUB. COUNTRY: England: United Kingdom  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200112  
 ENTRY DATE: Entered STN: 20020121  
 Last Updated on STN: 20020121  
 Entered Medline: 20011204

## ABSTRACT:

Bone is a unique tissue providing support, movement, and mineral balance for the body. Bone growth is achieved in the young by a process called modeling, and maintained during adulthood by a process termed remodeling. Three types of cells are responsible for the formation of cartilage and bone; the chondrocyte, osteoblast, and osteoclast. These cells are under the influence of a plethora of regulatory molecules, which govern their action to provide an individual optimal bone mass. Interruption of this homeostatic machinery, especially in the elderly, often results in a loss of bone mass (osteoporosis) or cartilage damage (rheumatoid arthritis). Many pharmacological agents have been made available in an effort to prevent or alleviate these pathologies, however, one vector often overlooked is the diet. This review focuses on the relationship between dietary polyunsaturated fatty acids and bone biology, both in vivo and in vitro.

CONTROLLED TERM: Adult  
 Aged  
 Arthritis, Rheumatoid: ME, metabolism  
 \*Bone Development  
 \*Bone Remodeling: PH, physiology  
 \*Bone and Bones: ME, metabolism  
 Chondrocytes: ME, metabolism  
 Cytokines: PH, physiology  
 \*Diet  
 Fatty Acids, Omega-3: PH, physiology  
 \*Fatty Acids, Unsaturated: PH, physiology  
 Humans  
 Linoleic Acids: PH, physiology

Middle Aged  
Osteoblasts: ME, metabolism  
Osteoclasts: ME, metabolism  
Osteoporosis: ME, metabolism  
CHEMICAL NAME: 0 (Cytokines); 0 (Fatty Acids, Omega-3); 0 (Fatty Acids, Unsaturated); 0 (Linoleic Acids)

L179 ANSWER 36 OF 58 MEDLINE on STN  
ACCESSION NUMBER: 94082524 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 8259718  
TITLE: [Nutrition as adjuvant therapy in chronic polyarthritis].  
Ernahrung als adjuvante Therapie bei chronischer Polyarthritis.  
AUTHOR: Adam O  
CORPORATE SOURCE: Rheuma-Einheit der Ludwig-Maximilians-Universitat,  
Staatliche Orthopadische Klinik, Munchen.  
SOURCE: Zeitschrift fur Rheumatologie, (1993 Sep-Oct) 52 (5)  
275-80.  
Journal code: 0414162. ISSN: 0340-1855.  
PUB. COUNTRY: GERMANY: Germany, Federal Republic of  
DOCUMENT TYPE: (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
(RANDOMIZED CONTROLLED TRIAL)  
LANGUAGE: German  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199401  
ENTRY DATE: Entered STN: 19940203  
Last Updated on STN: 19970203  
Entered Medline: 19940119

## ABSTRACT:

In the literature many casual observations report an arthritogenic effect of individual nutrients. The discovery of eicosanoids derived from arachidonic acid (AA) as most relevant mediators of joint inflammation allowed to elaborate the basis for a dietary therapy of rheumatoid arthritis. With an average intake of 18 g/d linoleic acid in western societies, linoleic acid is not converted to AA, and plasma levels of AA depend on its dietary intake with meat or meat products. The amount of AA ingested with the diet correlates with the formation of proinflammatory eicosanoids. Additionally, AA levels can be lowered by the ingestion of fish oil fatty acids. In our experiment, we aimed to combine the effect of low AA intake with the known anti-inflammatory effect of fish oil fatty acids. Our results demonstrate that vegetarians have lower AA percentages in erythrocyte lipids compared to the control group. The lower AA levels in plasma lipids coincided with higher percentages of fish oil fatty acids after supplementation, resulting in lower formation of mediators of inflammation. Moreover, the vegetarian group experienced a more pronounced decrease of AA in erythrocyte lipids after supplementation with fish oil fatty acids. These effects are supposed to contribute to the more favorable clinical course and laboratory findings in patients with rheumatoid arthritis on a vegetarian diet.

CONTROLLED TERM: Arachidonic Acid: AD, administration & dosage  
Arachidonic Acid: PH, physiology  
\*Arthritis, Rheumatoid: DH, diet therapy  
Arthritis, Rheumatoid: ET, etiology  
Arthritis, Rheumatoid: PP, physiopathology  
Capsules  
Diet, Vegetarian  
Double-Blind Method  
Eicosanoids: AD, administration & dosage  
Eicosanoids: PH, physiology  
English Abstract

\*Fish Oils: AD, administration & dosage  
Humans  
    **Linoleic Acids: AD, administration & dosage**  
Liver: PP, physiopathology  
Meat  
Range of Motion, Articular: PH, physiology

CAS REGISTRY NO.: 506-32-1 (Arachidonic Acid)  
CHEMICAL NAME: 0 (Capsules); 0 (Eicosanoids); 0 (Fish Oils); 0 (Linoleic Acids)

L179 ANSWER 37 OF 58      MEDLINE on STN  
ACCESSION NUMBER: 94185748      MEDLINE  
DOCUMENT NUMBER: PubMed ID: 8137899  
TITLE: Effects of lipid peroxide on production of matrix metalloproteinase 1 (tissue collagenase) and 3 (stromelysin) and tissue inhibitor metalloproteinase 1 by human rheumatoid synovial fibroblasts.  
AUTHOR: Hiraoka K; Sasaguri Y; Komiya S; Zenmyo M; Inoue A; Morimatsu M  
CORPORATE SOURCE: Department of Pathology, Kurume University School of Medicine, Japan.  
SOURCE: Experimental and molecular pathology, (1993 Dec) 59 (3) 169-76.  
Journal code: 0370711. ISSN: 0014-4800.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199404  
ENTRY DATE: Entered STN: 19940509  
Last Updated on STN: 20000303  
Entered Medline: 19940425

ABSTRACT:  
The effects of linoleic acid hydroperoxide on the production of matrix metalloproteinases (MMPs) including MMP-1 (tissue collagenase), -2 ("type IV collagenase"), and -3 (stromelysin) and of tissue inhibitor of metalloproteinase 1 (TIMP-1), as well as DNA synthesis were investigated in rheumatoid synovial fibroblasts. Our results demonstrated that the levels of proMMP-1 and -3 and TIMP-1 were extremely elevated when 0.5-2.0 nmole/ml of linoleic acid hydroperoxide was added to cultures of rheumatoid synovial fibroblasts. DNA synthesis, however, was inhibited by linoleic acid hydroperoxide. These results indicate that lipid peroxide causes the disruption of extracellular matrix macromolecules and the inhibition of cell repair in synovial tissue. Therefore, they also suggest that an elevated level of oxygen free radical and/or lipid peroxides in synovial fluid may play an important role in the process of rheumatoid arthritis, resulting in the disruption of the joint.

CONTROLLED TERM: **Arthritis, Rheumatoid: EN, enzymology**  
    **\*Arthritis, Rheumatoid: ME, metabolism**  
Blotting, Western  
Cell Division: PH, physiology  
Cells, Cultured  
\*Collagenases: BI, biosynthesis  
DNA: BI, biosynthesis  
Electrophoresis, Polyacrylamide Gel  
Fibroblasts: EN, enzymology  
Fibroblasts: ME, metabolism  
Fluorescent Antibody Technique  
\*Glycoproteins: BI, biosynthesis  
Humans

## Interstitial Collagenase

\*Linoleic Acids: PH, physiology

\*Lipid Peroxides: PH, physiology

\*Metalloendopeptidases: BI, biosynthesis

Stromelysin 1

Synovial Membrane: CY, cytology

Synovial Membrane: EN, enzymology

\*Synovial Membrane: ME, metabolism

Tissue Inhibitor of Metalloproteinases

CAS REGISTRY NO.: 25657-09-4 (linoleic acid hydroperoxide); 9007-49-2 (DNA)  
 CHEMICAL NAME: 0 (Glycoproteins); 0 (Linoleic Acids); 0 (Lipid Peroxides);  
 0 (Tissue Inhibitor of Metalloproteinases); EC 3.4.24  
 (Metalloendopeptidases); EC 3.4.24.- (Collagenases); EC  
 3.4.24.17 (Stromelysin 1); EC 3.4.24.7 (Interstitial  
 Collagenase)

L179 ANSWER 38 OF 58

MEDLINE on STN

ACCESSION NUMBER: 90279444 MEDLINE

DOCUMENT NUMBER: PubMed ID: 1972260

TITLE: Effect of dietary alpha-linolenate/linoleate balance on  
 crescent type-anti-glomerular basement membrane nephritis  
 in rats.

AUTHOR: Watanabe S; Suzuki E; Kojima R; Suzuki Y; Okuyama H

CORPORATE SOURCE: Department of Biological Chemistry, Faculty of  
 Pharmaceutical Sciences, Nagoya City University, Japan.

SOURCE: Lipids, (1990 May) 25 (5) 267-72.  
 Journal code: 0060450. ISSN: 0024-4201.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199007

ENTRY DATE: Entered STN: 19900824

Last Updated on STN: 19980206

Entered Medline: 19900717

## ABSTRACT:

Rats were fed diets with three different ratios of alpha-linolenate (18:3 n-3) and linoleate (18:2 n-6), and then crescentic-type anti-glomerular basement membrane (GBM) nephritis was induced. The urinary protein levels and the plasma urea nitrogen levels were significantly higher, and histological abnormalities of glomeruli were seen more frequently in the high-alpha-linolenate group than in the high-linoleate group. The differences in dietary alpha-linolenate/linoleate balances were reflected in the proportions of arachidonate and eicosapentaenoate in glomerular phospholipids. Our results indicate that dietary enrichment with alpha-linolenate causes unfavorable effects in this anti-GBM nephritis model.

CONTROLLED TERM: Check Tags: Comparative Study; Male  
 Animals

Basement Membrane: IM, immunology

Basement Membrane: ME, metabolism

Blood Urea Nitrogen

Dietary Fats, Unsaturated: PD, pharmacology

Glomerulonephritis, Membranous: BL, blood

\*Glomerulonephritis, Membranous: ME, metabolism

Glomerulonephritis, Membranous: UR, urine

Kidney Glomerulus: IM, immunology

Kidney Glomerulus: ME, metabolism

Kidney Glomerulus: UL, ultrastructure

Linoleic Acid

\*Linoleic Acids: PD, pharmacology

\*Linolenic Acids: PD, pharmacology  
Rats  
Rats, Inbred Strains  
alpha-Linolenic Acid  
CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid); 463-40-1 (alpha-Linolenic Acid)  
CHEMICAL NAME: 0 (Dietary Fats, Unsaturated); 0 (Linoleic Acids); 0  
(Linolenic Acids)

L179 ANSWER 39 OF 58 MEDLINE on STN  
ACCESSION NUMBER: 86260003 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 3014561  
TITLE: Protective effect of polyunsaturated fatty acid  
supplementation in apoferritin induced murine  
glomerulonephritis.  
AUTHOR: Kher V; Barcelli U; Weiss M; Gallon L; Pajel P;  
Laskarzewski P; Pollak V E  
CONTRACT NUMBER: 3-MO1-RR 00068-21S2 (NCRR)  
AM 17196 (NIADDK)  
AM 34489 (NIADDK)  
SOURCE: Prostaglandins, leukotrienes, and medicine, (1986 Jun) 22  
(3) 323-34.  
Journal code: 8206868. ISSN: 0262-1746.  
PUB. COUNTRY: SCOTLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 198608  
ENTRY DATE: Entered STN: 19900321  
Last Updated on STN: 19980206  
Entered Medline: 19860808

## ABSTRACT:

The effects of increasing two dietary polyunsaturated fatty acids, eicosapentaenoic and linoleic, on the glomerulonephritis induced by repeated injections of apoferritin in the mouse were studied. Urinary protein excretion was measured serially; serum creatinine, aortic and renal production of eicosanoids and kidney histology were measured at sacrifice at 8 weeks. Both high EPA and LA feedings were associated with lesser proteinuria, normalization of renal function and profound changes in the tissue production of prostaglandin and thromboxane, which may explain their protective effect in this model of renal disease.

CONTROLLED TERM: Check Tags: Male  
Animals  
Apoferritin  
Creatinine: BL, blood  
\*Dietary Fats: PD, pharmacology  
Eicosapentaenoic Acid: PD, pharmacology  
Fatty Acids, Unsaturated: AD, administration & dosage  
\*Fatty Acids, Unsaturated: PD, pharmacology  
Glomerulonephritis: CI, chemically induced  
Glomerulonephritis: PA, pathology  
\*Glomerulonephritis: PC, prevention & control  
Immune Complex Diseases: CI, chemically induced  
\*Immune Complex Diseases: PC, prevention & control  
Linoleic Acid  
Linoleic Acids: PD, pharmacology  
Mice  
Prostaglandins: BI, biosynthesis  
Proteinuria: PC, prevention & control  
Research Support, Non-U.S. Gov't  
Research Support, U.S. Gov't, P.H.S.

Thromboxane B2: BI, biosynthesis  
CAS REGISTRY NO.: 1553-41-9 (Eicosapentaenoic Acid); 2197-37-7 (Linoleic Acid); 54397-85-2 (Thromboxane B2); 60-27-5 (Creatinine); 9013-31-4 (Apoferitin)  
CHEMICAL NAME: 0 (Dietary Fats); 0 (Fatty Acids, Unsaturated); 0 (Linoleic Acids); 0 (Prostaglandins)

L179 ANSWER 40 OF 58 MEDLINE on STN  
ACCESSION NUMBER: 86190659 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 2870830  
TITLE: Uptake of fatty acids and their mobilization from phospholipids in cultured monocyte-macrophages from rheumatoid arthritis patients.  
AUTHOR: Bomalaski J S; Goldstein C S; Dailey A T; Douglas S D; Zurier R B  
CONTRACT NUMBER: AM T32-07442 (NIADDK)  
AM-28560 (NIADDK)  
SOURCE: Clinical immunology and immunopathology, (1986 May) 39 (2) 198-212.  
Journal code: 0356637. ISSN: 0090-1229.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 198606  
ENTRY DATE: Entered STN: 19900321  
Last Updated on STN: 19980206  
Entered Medline: 19860606

## ABSTRACT:

Prostaglandins (PG) and related eicosanoids which derive from essential fatty acids are important mediators and modulators of inflammation. Macrophages (M phi), which derive from peripheral blood monocytes (PBM), are prominent cells in the synovium of patients with rheumatoid arthritis (RA), and are a major source of synovial PGE2. In addition, fresh and cultured PBM from RA patients produce more PG than normal control cells. When allowed to mature in culture PBM exhibit many characteristics of macrophages (M-M phi). We examined uptake by M-M phi of eicosanoid precursor fatty acids (FA), their incorporation into cellular phospholipid (PL), and mobilization of FA after cell stimulation. Cultured M-M phi from treated and untreated RA patients (RA M-M phi) took up significantly more linoleic acid (LA), dihomogammalinolenic acid (DHGLA) and arachidonic acid (AA) than M-M phi from normal volunteers (N M-M phi). The enhanced uptake of FA observed in 12-day cultures of RA M-M phi was similar to uptake seen in normal human peritoneal macrophages (PM phi). After uptake FA were incorporated mainly into phosphatidylcholine (PC). M-M phi from untreated RA patients incorporated a smaller proportion of [<sup>14</sup>C]LA into PC (37.0 +/- 12.7% of total PL label) than normal cells (86.0 +/- 4.2%), and a greater proportion of [<sup>3</sup>H]AA into PC (57.1 +/- 7.1%) than normals (23.9 +/- 6.9%). Stimulation of M-M phi with calcium ionophore A23187 resulted in significantly greater hydrolysis of LA and AA from PC in RA M-M phi from both treated and untreated patients than from PC in N M-M phi. The data indicate that M-M phi from RA patients mature more rapidly in vitro than M-M phi from controls as uptake of FA by RA M-M phi increases with duration of culture and by 12 days in culture equals uptake by normal human peritoneal M phi. Also, RA M-M phi exhibit differences from N M-M phi in uptake, PL distribution, and hydrolysis of eicosanoid precursor FA. Such changes in FA metabolism might influence cell function and inflammatory responses.

CONTROLLED TERM: 8,11,14-Eicosatrienoic Acid: ME, metabolism  
Arachidonic Acid  
Arachidonic Acids: ME, metabolism  
\*Arthritis, Rheumatoid: ME, metabolism

Calcimycin: PD, pharmacology  
Cell Differentiation  
Cells, Cultured  
\*Fatty Acids: ME, metabolism  
Humans  
Kinetics  
    **Linoleic Acid**  
        **Linoleic Acids: ME, metabolism**  
Linolenic Acids: ME, metabolism  
\*Macrophages: ME, metabolism  
Membrane Lipids: ME, metabolism  
\*Monocytes: ME, metabolism  
Palmitic Acid  
Palmitic Acids: ME, metabolism  
\*Phospholipids: ME, metabolism  
Prostaglandins: ME, metabolism  
Research Support, Non-U.S. Gov't  
Research Support, U.S. Gov't, P.H.S.  
alpha-Linolenic Acid

CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid); 463-40-1 (alpha-Linolenic Acid);  
506-32-1 (Arachidonic Acid); 52665-69-7 (Calcimycin);  
57-10-3 (Palmitic Acid); 7324-41-6 (8,11,14-Eicosatrienoic  
Acid)  
CHEMICAL NAME: 0 (Arachidonic Acids); 0 (Fatty Acids); 0 (Linoleic Acids);  
0 (Linolenic Acids); 0 (Membrane Lipids); 0 (Palmitic  
Acids); 0 (Phospholipids); 0 (Prostaglandins)

L179 ANSWER 41 OF 58 MEDLINE on STN  
ACCESSION NUMBER: 85138149 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 3156280  
TITLE: Effects of dietary linoleic acid enrichment on induction of  
immune complex nephritis in mice.  
AUTHOR: Kher V; Barcelli U; Weiss M; Pollak V E  
CONTRACT NUMBER: AM 17196 (NIADDK)  
RR 00068-18-52 (NCRR)  
SOURCE: Nephron, (1985) 39 (3) 261-6.  
Journal code: 0331777. ISSN: 0028-2766.  
PUB. COUNTRY: Switzerland  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 198504  
ENTRY DATE: Entered STN: 19900320  
Last Updated on STN: 19980206  
Entered Medline: 19850410

## ABSTRACT:

In pharmacologic doses E series prostaglandins attenuate the development of immune complex nephritis. We studied the effect of the dietary prostaglandin precursor linoleic acid on murine apoferritin-induced immune complex glomerulonephritis. High, normal, or low linoleic acid diets were fed to mice for 4 weeks prior to and during the intraperitoneal apoferritin administration. A high linoleic acid diet feeding was associated with less proteinuria, less renal histologic damage, and prevented a rise in serum creatinine. We conclude that linoleic acid has a protective effect on the development of murine apoferritin-induced immune complex nephritis.

CONTROLLED TERM: Check Tags: Male  
Animals  
Apoferritin  
Diet  
    **Glomerulonephritis: ET, etiology**

Glomerulonephritis: PA, pathology  
 \*Glomerulonephritis: PC, prevention & control  
 Immune Complex Diseases: ET, etiology  
 Immune Complex Diseases: PA, pathology  
 \*Immune Complex Diseases: PC, prevention & control  
 Kidney Glomerulus: PA, pathology  
 Kidney Tubules: PA, pathology  
 Linoleic Acid  
 Linoleic Acids: AD, administration & dosage  
 \*Linoleic Acids: TU, therapeutic use  
 Mice  
 Prostaglandins E: ME, metabolism  
 Proteinuria: PC, prevention & control  
 Research Support, Non-U.S. Gov't  
 Research Support, U.S. Gov't, P.H.S.

CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid); 9013-31-4 (Apoferitin)  
 CHEMICAL NAME: 0 (Linoleic Acids); 0 (Prostaglandins E)

L179 ANSWER 42 OF 58 MEDLINE on STN  
 ACCESSION NUMBER: 85181775 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 3886567  
 TITLE: Linoleic acid treatment in inflammatory arthritis.  
 AUTHOR: Jantti J; Isomaki H; Laitinen O; Nikkari T; Seppala E; Vapaatalo H  
 SOURCE: International journal of clinical pharmacology, therapy, and toxicology, (1985 Feb) 23 (2) 89-91.  
 Journal code: 8003415. ISSN: 0174-4879.  
 PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of  
 DOCUMENT TYPE: (CLINICAL TRIAL)  
 (CONTROLLED CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 198505  
 ENTRY DATE: Entered STN: 19900320  
 Last Updated on STN: 19980206  
 Entered Medline: 19850528

## ABSTRACT:

Ten patients with chronic rheumatic diseases were treated either with sunflower oil (linoleic acid 66%; n = 6) or with olive oil (linoleic acid 4%; n = 4) for 21 days. Sunflower oil but not olive oil increased the serum concentrations of linoleic acid in all fractions studied. In cholesteryl esters, both arachidonic acid and dihomo-gamma-linolenic acid concentrations were slightly diminished. The changes in all these fatty acids were already seen on the first days of treatment. Plasma arachidonic acid metabolites showed no uniform changes during the treatment. Excretions of the main metabolite of prostacyclin (6-keto-PGF1 alpha) and thromboxane B2 into urine were slightly increased in most patients on sunflower oil. No marked improvement was seen in the clinical or conventional laboratory parameters in either treatment.

CONTROLLED TERM: Check Tags: Comparative Study; Female; Male  
 Arachidonic Acids: ME, metabolism  
 \*Arthritis, Rheumatoid: DT, drug therapy  
 Clinical Trials  
 Fatty Acids: BL, blood  
 Humans  
 Linoleic Acid  
 Linoleic Acids: BL, blood  
 \*Linoleic Acids: TU, therapeutic use  
 Research Support, Non-U.S. Gov't  
 Time Factors



CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid)  
CHEMICAL NAME: 0 (Arachidonic Acids); 0 (Fatty Acids); 0 (Linoleic Acids)

L179 ANSWER 43 OF 58 MEDLINE on STN  
ACCESSION NUMBER: 83178476 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 6340697  
TITLE: Diet in the treatment of rheumatoid arthritis.  
AUTHOR: Ziff M  
SOURCE: Arthritis and rheumatism, (1983 Apr) 26 (4) 457-61. Ref:  
28  
Journal code: 0370605. ISSN: 0004-3591.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
LANGUAGE: English  
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals  
ENTRY MONTH: 198305  
ENTRY DATE: Entered STN: 19900318  
Last Updated on STN: 19900318  
Entered Medline: 19830505  
CONTROLLED TERM: Animals  
\*Arthritis, Rheumatoid: DH, diet therapy  
Autoimmune Diseases: DH, diet therapy  
Fatty Acids, Unsaturated: ME, metabolism  
Humans  
Linoleic Acids: ME, metabolism  
Lymphocytes: ME, metabolism  
Macrophages: ME, metabolism  
Mice  
Mice, Inbred Strains  
Prostaglandins E: ME, metabolism  
Research Support, U.S. Gov't, P.H.S.  
CHEMICAL NAME: 0 (Fatty Acids, Unsaturated); 0 (Linoleic Acids); 0  
(Prostaglandins E)

L179 ANSWER 44 OF 58 MEDLINE on STN  
ACCESSION NUMBER: 82216621 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 7086783  
TITLE: Prostaglandin precursors in rheumatoid arthritis.  
AUTHOR: Haataja M; Nieminen A L; Makisara P; Kalliomaeki J L  
SOURCE: Journal of rheumatology, (1982 Jan-Feb) 9 (1) 91-3.  
Journal code: 7501984. ISSN: 0315-162X.  
PUB. COUNTRY: Canada  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 198208  
ENTRY DATE: Entered STN: 19900317  
Last Updated on STN: 19980206  
Entered Medline: 19820814  
CONTROLLED TERM: Check Tags: Female; Male  
Adolescent  
Adult  
Arachidonic Acids: BL, blood  
\*Arthritis, Rheumatoid: BL, blood  
Fatty Acids: BL, blood  
Humans  
Linoleic Acid  
Linoleic Acids: BL, blood  
Linolenic Acids: BL, blood

Middle Aged  
 Obesity  
 Pain  
 \*Prostaglandins: BI, biosynthesis  
 CAS REGISTRY NO.: 2197-37-7 (Linoleic Acid)  
 CHEMICAL NAME: 0 (Arachidonic Acids); 0 (Fatty Acids); 0 (Linoleic Acids);  
 0 (Linolenic Acids); 0 (Prostaglandins)

L179 ANSWER 45 OF 58 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2005237797 EMBASE  
 TITLE: Herbal medications commonly used in the practice of rheumatology: Mechanisms of action, efficacy, and side effects.  
 AUTHOR: Setty A.R.; Sigal L.H.  
 CORPORATE SOURCE: Dr. L.H. Sigal, J.3100 Pharmaceutical Research Institute, Bristol-Myers Squibb, P.O. Box 4000, Princeton, NJ 08543-4000, United States. leonard.sigal@bms.com  
 SOURCE: Seminars in Arthritis and Rheumatism, (2005) Vol. 34, No. 6, pp. 773-784.  
 Refs: 86  
 ISSN: 0049-0172 CODEN: SAHRBF  
 PUBLISHER IDENT.: S 0049-0172(05)00012-0  
 COUNTRY: United States  
 DOCUMENT TYPE: Journal; General Review  
 FILE SEGMENT: 031 Arthritis and Rheumatism  
 036 Health Policy, Economics and Management  
 037 Drug Literature Index  
 038 Adverse Reactions Titles  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 20050630  
 Last Updated on STN: 20050630

ABSTRACT: OBJECTIVE: To review the literature on herbal preparations commonly utilized in the treatment of rheumatic indications. METHODS: Search of MEDLINE (PubMed) was performed using both the scientific and the common names of herbs. Relevant articles in English were collected from PubMed and reviewed. RESULTS: This review summarizes the efficacy and toxicities of herbal remedies used in complementary and alternative medical (CAM) therapies for rheumatologic conditions, by elucidating the immune pathways through which these preparations have antiinflammatory and/or immunomodulatory activity and providing a scientific basis for their efficacy. Gammalinolenic acid suppresses inflammation by acting as a competitive inhibitor of prostaglandin E2 and leukotrienes (LTs) and by reducing the auto-induction of interleukin $\alpha$  (IL-1 $\alpha$ )-induced pro-IL-1 $\beta$  gene expression. It appears to be efficacious in rheumatoid arthritis (RA) but not for Sjogren's disease. The antiinflammatory actions of Harpagophytum procumbens is due to its action on eicosanoid biosynthesis and it may have a role in treating low back pain. While in vitro experiments with Tanacetum parthenium found inhibition of the expression of intercellular adhesion molecule-1, tumor necrosis factor alpha (TNF- $\alpha$ ), interferon- $\gamma$ , I $\kappa$ B kinase, and a decrease in T-cell adhesion, to date human studies have not proven it useful in the treatment of RA. Current experience with Tripterygium wilfordii Hook F, Uncaria tomentosa, finds them to be efficacious in the treatment of RA, while Urtica dioica and willow bark extract are effective for osteoarthritis. T. wilfordii Hook F extract inhibits the production of cytokines and other mediators from mononuclear phagocytes by blocking the up-regulation of a number of proinflammatory genes, including TNF- $\alpha$ , cyclooxygenase 2 (COX-2), interferon- $\gamma$ , IL-2, prostaglandin, and iNOS. Uncaria tomentosa and Urtica dioica both decrease the production of TNF- $\alpha$ . At present there

are no human studies on *Ocimum* spp. in rheumatic diseases. The fixed oil appears to have antihistaminic, antiserotonin, and antiprostaglandin activity. *Zingiber officinale* inhibits TNF- $\alpha$ , prostaglandin, and leukotriene synthesis and at present has limited efficacy in the treatment of osteoarthritis. **CONCLUSIONS:** Investigation of the mechanism and potential uses of CAM therapies is still in its infancy and many studies done to date are scientifically flawed. Further systematic and scientific inquiry into this topic is necessary to validate or refute the clinical claims made for CAM therapies. An understanding of the mechanism of action of CAM therapies allows physicians to counsel effectively on their proper and improper use, prevent adverse drug-drug interactions, and anticipate or appreciate toxicities. **RELEVANCE:** The use of CAM therapies is widespread among patients, including those with rheumatic diseases. Herbal medications are often utilized with little to no physician guidance or knowledge. An appreciation of this information will help physicians to counsel patients concerning the utility and toxicities of CAM therapies. An understanding and elucidation of the mechanisms by which CAM therapies may be efficacious can be instrumental in discovering new molecular targets in the treatment of diseases. .COPYRGT. 2005 Elsevier Inc. All rights reserved.

**CONTROLLED TERM:** Medical Descriptors:  
 \*rheumatic disease: DM, disease management  
 \*rheumatic disease: DT, drug therapy  
 drug mechanism  
 drug safety  
 drug activity  
 inflammation  
 gene expression  
**rheumatoid arthritis: DT, drug therapy**  
 Sjogren syndrome: DT, drug therapy  
 biosynthesis  
 low back pain: DT, drug therapy  
 T lymphocyte  
 cell adhesion  
 Tanacetum parthenium  
 Urtica dioica  
 harpagophytum procumbens  
 Harpagophytum  
 tripterygium wilfordii  
 Tripterygium  
 willow  
 osteoarthritis: DT, drug therapy  
 Uncaria tomentosa  
 basil  
 ginger  
 headache: DT, drug therapy  
 headache: PC, prevention  
 headache: SI, side effect  
 constipation: SI, side effect  
 flatulence: SI, side effect  
 epilepsy: SI, side effect  
 disease exacerbation: SI, side effect  
 seizure: SI, side effect  
 feces  
 weight gain  
 weight reduction  
 uterus contraction  
 side effect: SI, side effect  
 belching: SI, side effect  
 drug induced disease: SI, side effect

pain: DT, drug therapy  
digestive system function disorder: SI, side effect  
neuralgia: DT, drug therapy  
fever: DT, drug therapy  
migraine: DT, drug therapy  
migraine: PC, prevention  
    **systemic lupus erythematosus: DT, drug therapy**  
ankylosing spondylitis: DT, drug therapy  
psoriasis: DT, drug therapy  
kidney disease: DT, drug therapy  
kidney disease: SI, side effect  
chronic fatigue syndrome: DT, drug therapy  
bursitis: DT, drug therapy  
alopecia: DT, drug therapy  
eczema: DT, drug therapy  
gout: DT, drug therapy  
urticaria: DT, drug therapy  
allergic rhinitis: DT, drug therapy  
antiemetic activity  
motion sickness: DT, drug therapy  
dizziness: DT, drug therapy  
intoxication: DT, drug therapy  
intoxication: PC, prevention  
gastrointestinal disease: SI, side effect  
mouth ulcer: SI, side effect  
nausea and vomiting: SI, side effect  
diarrhea: SI, side effect  
common cold: DT, drug therapy  
common cold: PC, prevention  
stomach disease: SI, side effect  
dyspepsia: SI, side effect  
nausea: SI, side effect  
nephrotoxicity: SI, side effect  
xerostomia: SI, side effect  
gastritis: SI, side effect  
hypertension: SI, side effect  
spotting: SI, side effect  
amenorrhea: SI, side effect  
osteoporosis: SI, side effect  
chronic pain: DT, drug therapy  
Reye syndrome: SI, side effect  
peptic ulcer: SI, side effect  
diabetes mellitus: SI, side effect  
liver disease: SI, side effect  
leukopenia: SI, side effect  
thrombocytopenia: SI, side effect  
hair loss: SI, side effect  
human  
nonhuman  
clinical trial  
review  
priority journal  
Drug Descriptors:  
\*herbaceous agent: AE, adverse drug reaction  
\*herbaceous agent: CT, clinical trial  
\*herbaceous agent: CM, drug comparison  
\*herbaceous agent: DT, drug therapy  
\*herbaceous agent: IP, intraperitoneal drug administration  
\*herbaceous agent: PO, oral drug administration  
\*herbaceous agent: PE, pharmacoeconomics

\*herbaceous agent: PD, pharmacology  
gamma linolenic acid: AE, adverse drug reaction  
gamma linolenic acid: DO, drug dose  
gamma linolenic acid: DT, drug therapy  
gamma linolenic acid: PD, pharmacology  
prostaglandin E2: EC, endogenous compound  
leukotriene: EC, endogenous compound  
interleukin 1alpha: EC, endogenous compound  
interleukin 1beta: EC, endogenous compound  
icosanoid: EC, endogenous compound  
cell adhesion molecule: EC, endogenous compound  
tumor necrosis factor alpha: EC, endogenous compound  
gamma interferon: EC, endogenous compound  
I kappa B: EC, endogenous compound  
cytokine: EC, endogenous compound  
Tripterygium wilfordii extract: AE, adverse drug reaction  
Tripterygium wilfordii extract: CM, drug comparison  
Tripterygium wilfordii extract: DO, drug dose  
Drug Descriptors:  
Tripterygium wilfordii extract: DT, drug therapy  
Tripterygium wilfordii extract: TO, drug toxicity  
Tripterygium wilfordii extract: PD, pharmacology  
Uncaria tomentosa extract: AE, adverse drug reaction  
Uncaria tomentosa extract: DT, drug therapy  
Uncaria tomentosa extract: PD, pharmacology  
cyclooxygenase 2: EC, endogenous compound  
inducible nitric oxide synthase: EC, endogenous compound  
ginger extract: AE, adverse drug reaction  
ginger extract: CT, clinical trial  
ginger extract: CM, drug comparison  
ginger extract: DT, drug therapy  
ginger extract: PD, pharmacology  
primrose oil: AE, adverse drug reaction  
primrose oil: CB, drug combination  
primrose oil: DT, drug therapy  
anesthetic agent: AE, adverse drug reaction  
anesthetic agent: CB, drug combination  
phenothiazine: AE, adverse drug reaction  
phenothiazine: CB, drug combination  
black currant extract: AE, adverse drug reaction  
black currant extract: CT, clinical trial  
black currant extract: DT, drug therapy  
black currant extract: PD, pharmacology  
tramadol: DT, drug therapy  
rofecoxib: CT, clinical trial  
rofecoxib: CM, drug comparison  
rofecoxib: DT, drug therapy  
ws 1531: DO, drug dose  
ws 1531: DT, drug therapy  
ws 1531: PD, pharmacology  
ws 1531600: CT, clinical trial  
ws 1531600: DT, drug therapy  
ws 1531600: PO, oral drug administration  
ws 1531600: PD, pharmacology  
steiner harpagophytum procumbens extract 69: PD, pharmacology  
doleteffin: CT, clinical trial  
doleteffin: CM, drug comparison  
doleteffin: DT, drug therapy  
harpagogenin: PD, pharmacology

CONTROLLED TERM:

Harpagophytum extract: AE, adverse drug reaction  
Harpagophytum extract: CT, clinical trial  
Harpagophytum extract: CM, drug comparison  
Harpagophytum extract: DT, drug therapy  
Harpagophytum extract: PO, oral drug administration  
Harpagophytum extract: PD, pharmacology  
harpagide: AE, adverse drug reaction  
harpagide: DT, drug therapy  
harpagide: PD, pharmacology  
harpagoside: AE, adverse drug reaction  
harpagoside: CM, drug comparison  
harpagoside: DT, drug therapy  
harpagoside: PD, pharmacology  
boragio officinalis extract: AE, adverse drug reaction  
boragio officinalis extract: DT, drug therapy  
ocimum americanum extract: AE, adverse drug reaction  
ocimum americanum extract: DT, drug therapy  
ocimum americanum extract: PD, pharmacology  
Ocimum basilicum extract: AE, adverse drug reaction  
Ocimum basilicum extract: DT, drug therapy  
Ocimum basilicum extract: IP, intraperitoneal drug administration  
Ocimum basilicum extract: PD, pharmacology  
Ocimum sanctum extract: AE, adverse drug reaction  
Ocimum sanctum extract: DT, drug therapy  
Ocimum sanctum extract: PD, pharmacology  
salix alba extract: AE, adverse drug reaction  
salix alba extract: DT, drug therapy  
salix fragilis extract: AE, adverse drug reaction  
salix fragilis extract: DT, drug therapy  
salix purpurea extract: AE, adverse drug reaction  
salix purpurea extract: DT, drug therapy  
salix dapnoides extract: AE, adverse drug reaction  
salix dapnoides extract: DT, drug therapy  
Salix extract: AE, adverse drug reaction  
Salix extract: DT, drug therapy  
willow extract: CT, clinical trial  
willow extract: CM, drug comparison  
willow extract: DO, drug dose  
willow extract: DT, drug therapy  
willow extract: PE, pharmacoeconomics  
uncaria guianensis extract: DT, drug therapy  
alpinia officinarum extract: AE, adverse drug reaction  
alpinia officinarum extract: DT, drug therapy  
indometacin: PD, pharmacology  
acetylsalicylic acid: PD, pharmacology  
linoleic acid: AE, adverse drug reaction  
**linoleic acid: DT, drug therapy**  
dihomo gamma linolenic acid: AE, adverse drug reaction  
dihomo gamma linolenic acid: DT, drug therapy  
salicylic acid: AE, adverse drug reaction  
salicylic acid: DT, drug therapy  
tannin derivative: AE, adverse drug reaction  
tannin derivative: DT, drug therapy  
flavonoid: AE, adverse drug reaction  
flavonoid: DT, drug therapy  
ester derivative: AE, adverse drug reaction  
ester derivative: DT, drug therapy  
canin: AE, adverse drug reaction  
canin: DT, drug therapy

triptolide: AE, adverse drug reaction  
 triptolide: DT, drug therapy  
 triptolide: PO, oral drug administration  
 alkaloid derivative: AE, adverse drug reaction  
 alkaloid derivative: DT, drug therapy  
 tripdiolid: AE, adverse drug reaction  
 tripdiolid: DT, drug therapy  
 polyphenol derivative: AE, adverse drug reaction  
 polyphenol derivative: DT, drug therapy  
 gingerol: AE, adverse drug reaction  
 gingerol: DT, drug therapy  
 caffeic acid derivative: AE, adverse drug reaction  
 caffeic acid derivative: DT, drug therapy  
 estragole: AE, adverse drug reaction  
 salicylic acid derivative: DT, drug therapy  
 parthenolide: AE, adverse drug reaction  
 parthenolide: DT, drug therapy  
 Drug Descriptors:  
 parthenolide: IP, intraperitoneal drug administration  
 parthenolide: PD, pharmacology  
 curcumin: AE, adverse drug reaction  
 curcumin: DT, drug therapy  
 salicin: AE, adverse drug reaction  
 salicin: CT, clinical trial  
 salicin: CM, drug comparison  
 salicin: DT, drug therapy  
 nonsteroid antiinflammatory agent: CM, drug comparison  
 nonsteroid antiinflammatory agent: PE, pharmacoeconomics  
 mig 99: CT, clinical trial  
 mig 99: DT, drug therapy  
 mig 99: PD, pharmacology  
 Tanacetum parthenium extract: AE, adverse drug reaction  
 Tanacetum parthenium extract: CT, clinical trial  
 Tanacetum parthenium extract: DT, drug therapy  
 Tanacetum parthenium extract: PO, oral drug administration  
 Tanacetum parthenium extract: PD, pharmacology  
 prednisone: AE, adverse drug reaction  
 prednisone: CM, drug comparison  
 salazosulfapyridine: CT, clinical trial  
 salazosulfapyridine: DT, drug therapy  
 hydroxychloroquine: CT, clinical trial  
 hydroxychloroquine: DT, drug therapy  
 Urtica dioica extract: AE, adverse drug reaction  
 Urtica dioica extract: CT, clinical trial  
 Urtica dioica extract: DT, drug therapy  
 Urtica dioica extract: PD, pharmacology  
 ids 30: PD, pharmacology  
 paracetamol  
 ibuprofen: CT, clinical trial  
 ibuprofen: CM, drug comparison  
 ibuprofen: DT, drug therapy  
 unclassified drug

## CONTROLLED TERM:

## CAS REGISTRY NO.:

(gamma linolenic acid) 1686-12-0; (prostaglandin E2)  
 363-24-6; (gamma interferon) 82115-62-6; (inducible nitric  
 oxide synthase) 501433-35-8; (primrose oil) 65546-85-2;  
 (phenothiazine) 92-84-2; (tramadol) 27203-92-5, 36282-47-0;  
 (rofecoxib) 162011-90-7, 186912-82-3; (harpagide)  
 6926-08-5; (harpagoside) 19210-12-9; (indometacin) 53-86-1,  
 74252-25-8, 7681-54-1; (acetylsalicylic acid) 493-53-8,  
 50-78-2, 53663-74-4, 53664-49-6, 63781-77-1; (linoleic

acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (dihomo gamma linolenic acid) 1783-84-2, 7324-41-6; (salicylic acid) 63-36-5, 69-72-7; (triptolide) 38748-32-2; (gingerol) 58253-27-3; (estragole) 140-67-0; (parthenolide) 20554-84-1; (salicin) 138-52-3; (prednisone) 53-03-2; (salazosulfapyridine) 599-79-1; (hydroxychloroquine) 118-42-3, 525-31-5; (paracetamol) 103-90-2; (ibuprofen) 15687-27-1

CHEMICAL NAME: Ws 1531; Ws 1531600; Aspirin; Mig 99; Ids 30; Ids 23

L179 ANSWER 46 OF 58 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2005211840 EMBASE

TITLE: Immunology of cutaneous vasculitis associated with both etanercept and infliximab.

AUTHOR: Srivastava M.D.; Alexander F.; Tuthill R.J.

CORPORATE SOURCE: Dr. M.D. Srivastava, Division of Allergy and Immunology, Cleveland Clinic Foundation, 9500 Euclid Avenue, Cleveland, OH 44195, United States. srivasm2@ccf.org

SOURCE: Scandinavian Journal of Immunology, (2005) Vol. 61, No. 4, pp. 329-336.

Refs: 29

ISSN: 0300-9475 CODEN: SJIMAX

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 013 Dermatology and Venereology  
026 Immunology, Serology and Transplantation  
037 Drug Literature Index  
038 Adverse Reactions Titles  
048 Gastroenterology

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 20050602

Last Updated on STN: 20050602

ABSTRACT: Targeted inhibition of tumour necrosis factor- $\alpha$  (TNF- $\alpha$ ) is an effective therapy in rheumatoid arthritis and Crohn's disease (CD). Infliximab, a monoclonal murine-human chimeric antibody to TNF- $\alpha$ , and etanercept, a fusion protein of two p75 chains of the TNF receptor II and the Fc portion of IgG1, are generally well tolerated. Rarely does clinically significant autoimmunity, including drug-induced lupus and vasculitis occur. Immunologic mechanisms underlying the development of autoimmunity in the presence of such powerful immunosuppressants are unknown. We describe a patient with CD, who developed cutaneous vasculitis on etanercept, which worsened significantly with switch to infliximab. Investigation of the associated systemic and local immune response demonstrated the absence of human antichimera antibodies, but mRNA for T-helper 1 cytokines, chemokines and defensins in the skin and elevated angiogenesis factors in the serum, as determined by reverse-transcriptase polymerase chain reaction and enzyme-linked immunosorbent assay. Histopathology revealed a lymphocytic vasculitis composed of T cells. A permanent B-cell line (MD-B) producing extremely high amounts of chemokines and interleukin-6 was established from this patient's peripheral blood. Lesions progressed despite discontinuation of the drugs and (40 mg/day) prednisone but almost completely resolved with single dose of (0.1 mg/kg) intravenous dexamethasone, which may be therapy of choice for this reaction. A few lesions (<10) have recurred intermittently over 4 years of follow-up, suggesting possible persistence of this TNF-inhibitor-triggered autoimmune disease. .COPYRG. 2005 Blackwell Publishing Ltd.

CONTROLLED TERM: Medical Descriptors:  
\*vasculitis: DT, drug therapy



\*vasculitis: SI, side effect  
\*skin blood vessel disorder: DT, drug therapy  
\*skin blood vessel disorder: SI, side effect  
  **rheumatoid arthritis**  
Crohn disease: DT, drug therapy  
autoimmunity  
disease exacerbation  
cytokine production  
Th1 cell  
reverse transcription polymerase chain reaction  
enzyme linked immunosorbent assay  
histopathology  
T lymphocyte  
B lymphocyte  
lymphocyte culture  
drug withdrawal  
single drug dose  
drug choice  
recurrent disease  
follow up  
autoimmune disease: DT, drug therapy  
autoimmune disease: SI, side effect  
rash: SI, side effect  
dermatitis: SI, side effect  
purpura: SI, side effect  
night sweat: SI, side effect  
flushing  
skin burning sensation: SI, side effect  
alopecia: SI, side effect  
vagina bleeding: SI, side effect  
muscle weakness: SI, side effect  
arthralgia: SI, side effect  
malaise: SI, side effect  
skin defect: SI, side effect  
eye disease: SI, side effect  
pain: SI, side effect  
erythema: SI, side effect  
anaphylaxis: SI, side effect  
infection: SI, side effect  
tuberculosis: SI, side effect  
cancer: SI, side effect  
demyelinating disease: SI, side effect  
blood dyscrasia: SI, side effect  
lupus erythematosus: SI, side effect  
human  
female  
case report  
human tissue  
human cell  
adult  
article  
priority journal  
Drug Descriptors:  
\*infliximab: AE, adverse drug reaction  
\*infliximab: DT, drug therapy  
\*etanercept: AE, adverse drug reaction  
\*etanercept: DT, drug therapy  
tumor necrosis factor alpha: EC, endogenous compound  
monoclonal antibody: AE, adverse drug reaction  
monoclonal antibody: DT, drug therapy

chimeric antibody: AE, adverse drug reaction  
 chimeric antibody: DT, drug therapy  
 tumor necrosis factor alpha antibody: AE, adverse drug reaction  
 tumor necrosis factor alpha antibody: DT, drug therapy  
 hybrid protein: AE, adverse drug reaction  
 hybrid protein: DT, drug therapy  
 protein p75: AE, adverse drug reaction  
 protein p75: DT, drug therapy  
 tumor necrosis factor receptor 2: AE, adverse drug reaction  
 tumor necrosis factor receptor 2: DT, drug therapy  
 immunoglobulin G1: AE, adverse drug reaction  
 immunoglobulin G1: DT, drug therapy  
 immunoglobulin Fc fragment: AE, adverse drug reaction  
 immunoglobulin Fc fragment: DT, drug therapy  
 immunosuppressive agent: AE, adverse drug reaction  
 immunosuppressive agent: DT, drug therapy  
 messenger RNA: EC, endogenous compound  
 cytokine: EC, endogenous compound  
 chemokine: EC, endogenous compound  
 defensin: EC, endogenous compound  
 angiogenic factor: EC, endogenous compound  
 interleukin 6: EC, endogenous compound  
 prednisone: DT, drug therapy  
 prednisone: PO, oral drug administration  
 dexamethasone: DO, drug dose  
 dexamethasone: DT, drug therapy  
 dexamethasone: IV, intravenous drug administration  
 methotrexate  
 designer drug  
 azathioprine  
 hydrocortisone: IV, intravenous drug administration  
 diphenhydramine  
 paracetamol: PO, oral drug administration  
 ranitidine  
 metronidazole  
 ciprofloxacin  
 amoxicillin  
 loperamide  
 adrenalin  
 immunoglobulin: IV, intravenous drug administration  
 pimecrolimus: TP, topical drug administration  
 lipid: IV, intravenous drug administration  
**linoleic acid: PO, oral drug administration**  
 linolenic acid: PO, oral drug administration  
 intralipid: AE, adverse drug reaction  
 liposyn II  
 (infliximab) 170277-31-3; (etanercept) 185243-69-0,  
 200013-86-1; (protein p75) 91608-97-8; (prednisone)  
 53-03-2; (dexamethasone) 50-02-2; (methotrexate)  
 15475-56-6, 59-05-2, 7413-34-5; (azathioprine) 446-86-6;  
 (hydrocortisone) 50-23-7; (diphenhydramine) 147-24-0,  
 58-73-1; (paracetamol) 103-90-2; (ranitidine) 66357-35-5,  
 66357-59-3; (metronidazole) 39322-38-8, 443-48-1;  
 (ciprofloxacin) 85721-33-1; (amoxicillin) 26787-78-0,  
 34642-77-8, 61336-70-7; (loperamide) 34552-83-5,  
 53179-11-6; (adrenalin) 51-43-4, 55-31-2, 6912-68-1;  
 (immunoglobulin) 9007-83-4; (pimecrolimus) 137071-32-0;  
 (lipid) 66455-18-3; (linoleic acid) 1509-85-9, 2197-37-7,  
 60-33-3, 822-17-3; (linolenic acid) 1955-33-5, 463-40-1;

CAS REGISTRY NO.:

CHEMICAL NAME: (intralipid) 68890-65-3; (liposyn II) 112353-79-4  
Zantac; Flagyl; Cipro

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ACCESSION NUMBER: 2005228339 EMBASE

TITLE: Anti-inflammatory effects of long-chain  $\omega$ 3 fatty acids: Potential benefits for atrial fibrillation [11].

AUTHOR: Liu T.; Li G.

CORPORATE SOURCE: T. Liu, Department of Cardiology, Second Hosp. of Tianjin Med. Univ., N023, Pingjiang Road, HeXi District, Tianjin 300211, China. liutongdoc@yahoo.com.cn

SOURCE: Medical Hypotheses, (2005) Vol. 65, No. 1, pp. 200-201.  
Refs: 11  
ISSN: 0306-9877 CODEN: MEHYDY

PUBLISHER IDENT.: S 0306-9877(05)00063-0

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Letter

FILE SEGMENT: 030 Pharmacology  
037 Drug Literature Index

LANGUAGE: English

ENTRY DATE: Entered STN: 20050616  
Last Updated on STN: 20050616

CONTROLLED TERM: Medical Descriptors:  
\*antiinflammatory activity  
\*heart atrium fibrillation: DT, drug therapy  
drug effect  
dietary intake  
drug mechanism  
pathogenesis  
cardiovascular ,risk  
diet supplementation  
rheumatoid arthritis: DT, drug therapy  
psoriasis: DT, drug therapy  
asthma: DT, drug therapy  
enteritis: DT, drug therapy  
human  
letter  
priority journal  
Drug Descriptors:  
\*omega 3 fatty acid: DT, drug therapy  
\*omega 3 fatty acid: PD, pharmacology  
\*long chain fatty acid: DT, drug therapy  
\*long chain fatty acid: PD, pharmacology  
C reactive protein: EC, endogenous compound  
fish oil: PD, pharmacology  
amyloid A protein: EC, endogenous compound  
interleukin 6: EC, endogenous compound  
linoleic acid: PD, pharmacology

CAS REGISTRY NO.: (C reactive protein) 9007-41-4; (fish oil) 8016-13-5;  
(amyloid A protein) 59165-71-8; (linoleic acid) 1509-85-9,  
2197-37-7, 60-33-3, 822-17-3

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ACCESSION NUMBER: 2004422010 EMBASE

TITLE: The health benefits of omega-3 polyunsaturated fatty acids: A review of the evidence.

AUTHOR: Ruxton C.H.S.; Reed S.C.; Simpson M.J.A.; Millington K.J.

CORPORATE SOURCE: Dr. C.H.S. Ruxton, Nutrition Communications, 6 Front

SOURCE: Lebanon, Cupar KY15 4EA, United Kingdom.  
carrie@nutrition-communications.com  
Journal of Human Nutrition and Dietetics, (2004) Vol. 17,  
No. 5, pp. 449-459.  
Refs: 74  
ISSN: 0952-3871 CODEN: JHNDEO

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology  
018 Cardiovascular Diseases and Cardiovascular Surgery  
026 Immunology, Serology and Transplantation  
029 Clinical Biochemistry  
030 Pharmacology  
037 Drug Literature Index

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 20041021  
Last Updated on STN: 20041021

ABSTRACT: The UK dietary guidelines for cardiovascular disease acknowledge the importance of long-chain omega-3 polyunsaturated fatty acids (PUFA) - a component of fish oils - in reducing heart disease risk. At the time, it was recommended that the average n-3 PUFA intake should be increased from 0.1 to 0.2 g day<sup>-1</sup>. However, since the publication of these guidelines, a plethora of evidence relating to the beneficial effects of n-3 PUFAs, in areas other than heart disease, has emerged. The majority of intervention studies, which found associations between various conditions and the intake of fish oils or their derivatives, used n-3 intakes well above the 0.2 g day<sup>-1</sup> recommended by Committee on Medical Aspects of Food Policy (COMA). Furthermore, in 2004, the Food Standards Agency changed its advice on oil-rich fish creating a discrepancy between the levels of n-3 PUFA implied by the new advice and the 1994 COMA guideline. This review will examine published evidence from observational and intervention studies relating to the health effects of n-3 PUFAs, and discuss whether the current UK recommendation for long-chain n-3 PUFA needs to be revisited. .COPYRG. The British Dietetic Association Ltd 2004.

CONTROLLED TERM: Medical Descriptors:  
nutritional health  
evidence based medicine  
United Kingdom  
dietary intake  
practice guideline  
cardiovascular disease: DT, drug therapy  
cardiovascular disease: PC, prevention  
cardiovascular disease: TH, therapy  
food composition  
risk reduction  
publication  
correlation analysis  
treatment outcome  
diet therapy  
disease association  
drug dose regimen  
health care policy  
government  
clinical observation  
drug structure  
drug mechanism  
inflammatory disease: DT, drug therapy  
enteritis: DT, drug therapy

asthma: DT, drug therapy  
cystic fibrosis: DT, drug therapy  
  **rheumatoid arthritis: DT, drug therapy**  
brain development  
mental health  
depression: DT, drug therapy  
bipolar disorder: DT, drug therapy  
cognitive defect: DT, drug therapy  
cognitive defect: PC, prevention  
systematic review  
human  
clinical trial  
review  
Drug Descriptors:  
\*omega 3 fatty acid: CT, clinical trial  
\*omega 3 fatty acid: AN, drug analysis  
\*omega 3 fatty acid: CB, drug combination  
\*omega 3 fatty acid: CM, drug comparison  
\*omega 3 fatty acid: DO, drug dose  
\*omega 3 fatty acid: DT, drug therapy  
\*omega 3 fatty acid: EC, endogenous compound  
\*omega 3 fatty acid: PD, pharmacology  
long chain fatty acid: CT, clinical trial  
long chain fatty acid: AN, drug analysis  
long chain fatty acid: CB, drug combination  
long chain fatty acid: CM, drug comparison  
long chain fatty acid: DO, drug dose  
long chain fatty acid: DT, drug therapy  
long chain fatty acid: EC, endogenous compound  
long chain fatty acid: PD, pharmacology  
fish oil: CT, clinical trial  
fish oil: AN, drug analysis  
fish oil: CB, drug combination  
fish oil: CM, drug comparison  
fish oil: DO, drug dose  
fish oil: DT, drug therapy  
fish oil: PD, pharmacology  
docosahexaenoic acid: CT, clinical trial  
docosahexaenoic acid: AN, drug analysis  
docosahexaenoic acid: CB, drug combination  
docosahexaenoic acid: CM, drug comparison  
docosahexaenoic acid: DO, drug dose  
docosahexaenoic acid: DT, drug therapy  
docosahexaenoic acid: EC, endogenous compound  
docosahexaenoic acid: PD, pharmacology  
icosapentaenoic acid: CT, clinical trial  
icosapentaenoic acid: AN, drug analysis  
icosapentaenoic acid: CB, drug combination  
icosapentaenoic acid: CM, drug comparison  
icosapentaenoic acid: DO, drug dose  
icosapentaenoic acid: DT, drug therapy  
icosapentaenoic acid: EC, endogenous compound  
icosapentaenoic acid: PD, pharmacology  
linoleic acid: CM, drug comparison  
  **linoleic acid: PD, pharmacology**  
omega 6 fatty acid: EC, endogenous compound  
arachidonic acid: EC, endogenous compound  
linseed oil: CM, drug comparison  
linseed oil: PD, pharmacology  
saturated fatty acid

alpha tocopherol: CT, clinical trial  
 alpha tocopherol: CB, drug combination  
 alpha tocopherol: CM, drug comparison  
 alpha tocopherol: DT, drug therapy  
 nonsteroid antiinflammatory agent: DT, drug therapy  
 CAS REGISTRY NO.: (fish oil) 8016-13-5; (docosahexaenoic acid) 25167-62-8,  
 32839-18-2; (icosapentaenoic acid) 25378-27-2, 32839-30-8;  
 (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3;  
 (arachidonic acid) 506-32-1, 6610-25-9, 7771-44-0; (linseed  
 oil) 8001-26-1; (alpha tocopherol) 1406-18-4, 1406-70-8,  
 52225-20-4, 58-95-7, 59-02-9

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ACCESSION NUMBER: 2004141716 EMBASE  
 TITLE: Fish oil supplementation: Evidence for health benefits.  
 AUTHOR: Harris W.S.  
 CORPORATE SOURCE: Dr. W.S. Harris, 4320 Wornall Road, Kansas City, MO 64111,  
 United States. wharris@saint-lukes.org  
 SOURCE: Cleveland Clinic Journal of Medicine, (2004) Vol. 71, No.  
 3, pp. 208-221.  
 Refs: 48  
 ISSN: 0891-1150 CODEN: CCJMEL  
 COUNTRY: United States  
 DOCUMENT TYPE: Journal; General Review  
 FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology  
 018 Cardiovascular Diseases and Cardiovascular Surgery  
 029 Clinical Biochemistry  
 030 Pharmacology  
 037 Drug Literature Index  
 039 Pharmacy  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 20040412  
 Last Updated on STN: 20040412

ABSTRACT: Many health claims for fish oil (which contains omega-3 fatty acids) in conditions from Alzheimer disease to Zellweger syndrome are based on indirect evidence. But the evidence is direct for a benefit in coronary heart disease prevention, and the American Heart Association recently issued guidelines for the intake of omega-3 oils. This article answers a series of questions that health care professionals often ask regarding fish oil, such as what are proper dosages, and are there risks of ingesting pollutants by eating more fish or using supplements?.

CONTROLLED TERM: Medical Descriptors:  
 \*diet supplementation  
 \*heart disease: DT, drug therapy  
 \*heart disease: PC, prevention  
 Alzheimer disease: DT, drug therapy  
 Zellweger syndrome: DT, drug therapy  
 evidence based medicine  
 ischemic heart disease: DT, drug therapy  
 ischemic heart disease: PC, prevention  
 United States  
 health care organization  
 health practitioner  
 drug dose regimen  
 risk assessment  
 ingestion  
 pollutant

food intake  
drug capsule  
food contamination  
pregnancy  
Eskimo  
drug structure  
sea food  
drug metabolism  
heart protection  
cardiovascular disease: DT, drug therapy  
cardiovascular disease: PC, prevention  
heart reinfarction: DT, drug therapy  
heart reinfarction: PC, prevention  
angina pectoris: DT, drug therapy  
angina pectoris: PC, prevention  
heart infarction: DT, drug therapy  
heart infarction: PC, prevention  
drug efficacy  
drug mechanism  
heart arrhythmia: DT, drug therapy  
heart arrhythmia: PC, prevention  
drug formulation  
drug blood level  
    **rheumatoid arthritis: DT, drug therapy**  
    **systemic lupus erythematosus: DT, drug therapy**  
Crohn disease: DT, drug therapy  
ulcerative colitis: DT, drug therapy  
immunoglobulin A nephropathy: DT, drug therapy  
prostate cancer: DT, drug therapy  
human  
nonhuman  
clinical trial  
review  
Drug Descriptors:  
\*fish oil: CT, clinical trial  
\*fish oil: AN, drug analysis  
\*fish oil: CM, drug comparison  
\*fish oil: CR, drug concentration  
\*fish oil: DO, drug dose  
\*fish oil: DT, drug therapy  
\*fish oil: EC, endogenous compound  
\*fish oil: PR, pharmaceuticals  
\*fish oil: PK, pharmacokinetics  
\*fish oil: PD, pharmacology  
omega 3 fatty acid: CT, clinical trial  
omega 3 fatty acid: AN, drug analysis  
omega 3 fatty acid: CM, drug comparison  
omega 3 fatty acid: CR, drug concentration  
omega 3 fatty acid: DO, drug dose  
omega 3 fatty acid: DT, drug therapy  
omega 3 fatty acid: EC, endogenous compound  
omega 3 fatty acid: PR, pharmaceuticals  
omega 3 fatty acid: PK, pharmacokinetics  
omega 3 fatty acid: PD, pharmacology  
mercury: TO, drug toxicity  
icosapentaenoic acid: CT, clinical trial  
icosapentaenoic acid: AN, drug analysis  
icosapentaenoic acid: CM, drug comparison  
icosapentaenoic acid: CR, drug concentration  
icosapentaenoic acid: DO, drug dose

icosapentaenoic acid: DT, drug therapy  
 icosapentaenoic acid: EC, endogenous compound  
 icosapentaenoic acid: PR, pharmaceuticals  
 icosapentaenoic acid: PK, pharmacokinetics  
 icosapentaenoic acid: PD, pharmacology  
 docosahexaenoic acid: CT, clinical trial  
 docosahexaenoic acid: AN, drug analysis  
 docosahexaenoic acid: CM, drug comparison  
 docosahexaenoic acid: CR, drug concentration  
 docosahexaenoic acid: DO, drug dose  
 docosahexaenoic acid: DT, drug therapy  
 docosahexaenoic acid: EC, endogenous compound  
 docosahexaenoic acid: PR, pharmaceuticals  
 docosahexaenoic acid: PK, pharmacokinetics  
 docosahexaenoic acid: PD, pharmacology  
 linoleic acid: CT, clinical trial  
 linoleic acid: AN, drug analysis  
 linoleic acid: CM, drug comparison  
     **linoleic acid: DO, drug dose**  
     **linoleic acid: DT, drug therapy**  
 linoleic acid: EC, endogenous compound  
     **linoleic acid: PK, pharmacokinetics**  
     **linoleic acid: PD, pharmacology**  
 arachidonic acid: EC, endogenous compound  
 placebo  
 calcium channel blocking agent: CM, drug comparison  
 calcium channel blocking agent: PD, pharmacology  
 beta adrenergic receptor blocking agent: CM, drug  
 comparison  
 beta adrenergic receptor blocking agent: PD, pharmacology  
 triacylglycerol  
 methyl group  
 ester derivative  
 immunoglobulin A: EC, endogenous compound  
 kirkland signature fish oil concentrate  
 members mark omega 3 fish oil  
 gnc liquid norwegian clo  
 spring valley maxepa  
 origin natural fish oil concentrate  
 walgreens fish oil concentrate  
 your life fish oil concentrate  
 gnc fish body oils 1000  
 natrol omega 3

## CONTROLLED TERM:

Drug Descriptors:  
 vitasmart fish oil concentrate  
 sav on fish oil concentrate  
 sundown fish oil  
 nature made fish oil  
 natures bounty natural fish oil  
 rexall cholesterol free fish oil  
 gnc triple cod liver oil clo caps  
 twinlab emulsified norwegian clo  
 omega 3 enteric coated

## CAS REGISTRY NO.:

(fish oil) 8016-13-5; (mercury) 14302-87-5, 7439-97-6;  
 (icosapentaenoic acid) 25378-27-2, 32839-30-8;  
 (docosahexaenoic acid) 25167-62-8, 32839-18-2; (linoleic  
 acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (arachidonic  
 acid) 506-32-1, 6610-25-9, 7771-44-0

## CHEMICAL NAME:

(1) Kirkland signature fish oil concentrate; (2) Members  
 mark omega 3 fish oil; (3) Gnc liquid norwegian clo; (4)



Spring valley maxepa; (5) Origin natural fish oil concentrate; (6) Walgreens fish oil concentrate; (7) Your life fish oil concentrate; (8) Gnc fish body oils 1000; (9) Natrol omega 3; (10) Vitasmart fish oil concentrate; (11) Sav on fish oil concentrate; (12) Sundown fish oil; (13) Nature made fish oil; (14) Natures bounty natural fish oil; (15) Rexall cholesterol free fish oil; (16) Gnc triple cod liver oil clo caps; (17) Twinlab emulsified norwegian clo; (18) Omacor; Omega 3 enteric coated

COMPANY NAME: (1) Kirkland Signature; (2) Members Mark; (4) Spring Valley; (5) Origin; (6) Walgreen; (7) Your Life; (9) Natrol; (10) VitaSmart; (11) Sav On; (12) Sundown; (13) Nature Made Nutritional Products; (14) Natures Bounty; (15) Rexall Corporation; (16) GNC; (17) Twinlab; (18) Pronova (Norway)

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ACCESSION NUMBER: 2005038839 EMBASE  
 TITLE: The role of dietary omega-3 and omega-6 essential fatty acids in the nutrition of dogs and cats: A review.  
 AUTHOR: Biagi G.; Mordenti A.L.; Cocchi M.  
 CORPORATE SOURCE: Dr. G. Biagi, DIMORFIPA, via Tolara di Sopra 50, 40064 - Ozzano Emilia, Italy. gbiagi@vet.unibo.it  
 SOURCE: Progress in Nutrition, (2004) Vol. 6, No. 2, pp. 97-107.  
 Refs: 80  
 ISSN: 1129-8723 CODEN: PNRUAT  
 COUNTRY: Italy  
 DOCUMENT TYPE: Journal; General Review  
 FILE SEGMENT: 016 Cancer  
 018 Cardiovascular Diseases and Cardiovascular Surgery  
 028 Urology and Nephrology  
 029 Clinical Biochemistry  
 030 Pharmacology  
 037 Drug Literature Index  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English; Italian  
 ENTRY DATE: Entered STN: 20050210  
 Last Updated on STN: 20050210

ABSTRACT: Omega-3 and omega-6 fatty acids are essential in all mammals for normal growth and prevention of several diseases. Because of the seed oil production tendencies and the feeding techniques of farm animals, in the Western countries, diets for humans as well as homemade diets for dogs and cats are usually very high in omega-6 and low in omega-3 fatty acids. Several studies have shown that an optimal omega-6/omega-3 fatty acid ratio (about 6 to 1) in the diet of dogs and cats may reduce the incidence of some diseases, such as cancer and sudden cardiac death. Furthermore, the use of fatty acid supplements has proved to be beneficial in the treatment of several pathogenic conditions, such as chronic inflammatory diseases, atopy, chronic renal insufficiency, and some types of cancer. Therefore, particular attention should be paid to the type and quantity of fat sources that are used when diets for dogs and cats are formulated, in order to assure the optimal amount and balance of omega-3 and omega-6 fatty acids in the food.

CONTROLLED TERM: Medical Descriptors:  
 \*nutrition  
 \*diet supplementation  
 dog  
 cat  
 cancer: DT, drug therapy

cancer: ET, etiology  
cancer: PC, prevention  
sudden death  
chronic inflammation: DT, drug therapy  
chronic inflammation: ET, etiology  
chronic inflammation: PC, prevention  
atopy: DT, drug therapy  
atopy: ET, etiology  
atopy: PC, prevention  
chronic kidney failure: DT, drug therapy  
chronic kidney failure: ET, etiology  
chronic kidney failure: PC, prevention  
food intake  
fatty acid metabolism  
essential fatty acid deficiency: DT, drug therapy  
essential fatty acid deficiency: ET, etiology  
essential fatty acid deficiency: PC, prevention  
dietary intake  
nervous system development  
immune system  
antiinflammatory activity  
thrombocyte aggregation  
lipid composition  
    **rheumatoid arthritis: DT, drug therapy**  
    **rheumatoid arthritis: PC, prevention**  
skin allergy: DT, drug therapy  
skin allergy: PC, prevention  
drug potentiation  
cardiovascular disease: DT, drug therapy  
cardiovascular disease: ET, etiology  
cardiovascular disease: PC, prevention  
antiarrhythmic activity  
lymphoma: DT, drug therapy  
lymphoma: ET, etiology  
lymphoma: PC, prevention  
human  
nonhuman  
review  
Drug Descriptors:  
\*omega 3 fatty acid: CB, drug combination  
\*omega 3 fatty acid: IT, drug interaction  
\*omega 3 fatty acid: DT, drug therapy  
\*omega 3 fatty acid: PD, pharmacology  
\*omega 6 fatty acid: CB, drug combination  
\*omega 6 fatty acid: IT, drug interaction  
\*omega 6 fatty acid: DT, drug therapy  
\*omega 6 fatty acid: PD, pharmacology  
essential fatty acid: CB, drug combination  
essential fatty acid: IT, drug interaction  
essential fatty acid: DT, drug therapy  
essential fatty acid: PD, pharmacology  
    **linoleic acid: DT, drug therapy**  
linoleic acid: EC, endogenous compound  
arachidonic acid: DT, drug therapy  
arachidonic acid: EC, endogenous compound  
arachidonic acid: PD, pharmacology  
icosapentaenoic acid: CB, drug combination  
icosapentaenoic acid: CM, drug comparison  
icosapentaenoic acid: DT, drug therapy  
icosapentaenoic acid: EC, endogenous compound

icosapentaenoic acid: PD, pharmacology  
 docosahexaenoic acid: CB, drug combination  
 docosahexaenoic acid: CM, drug comparison  
 docosahexaenoic acid: DT, drug therapy  
 docosahexaenoic acid: EC, endogenous compound  
 gamma linolenic acid: CB, drug combination  
 gamma linolenic acid: CM, drug comparison  
 gamma linolenic acid: DT, drug therapy  
 gamma linolenic acid: EC, endogenous compound  
 dihomogamma linolenic acid: EC, endogenous compound  
 polyunsaturated fatty acid: CB, drug combination  
 polyunsaturated fatty acid: CM, drug comparison  
 polyunsaturated fatty acid: IT, drug interaction  
 polyunsaturated fatty acid: DT, drug therapy  
 polyunsaturated fatty acid: EC, endogenous compound  
 polyunsaturated fatty acid: PD, pharmacology  
 leukotriene B4: EC, endogenous compound  
 prostaglandin E2: EC, endogenous compound  
 thrombocyte activating factor: EC, endogenous compound  
 thromboxane A2: EC, endogenous compound  
 tumor necrosis factor alpha: EC, endogenous compound  
 interleukin 1beta: EC, endogenous compound  
 prostaglandin I3: EC, endogenous compound  
 leukotriene B5: EC, endogenous compound  
 interleukin 2: EC, endogenous compound  
 nitric oxide: EC, endogenous compound  
 fish oil: CB, drug combination  
 fish oil: CM, drug comparison  
 fish oil: DT, drug therapy  
 vegetable oil: CB, drug combination  
 vegetable oil: DT, drug therapy  
 olive oil: CM, drug comparison  
 olive oil: DT, drug therapy  
 primrose oil: CB, drug combination  
 primrose oil: CM, drug comparison  
 primrose oil: DT, drug therapy  
 antihistaminic agent: CB, drug combination  
 antihistaminic agent: IT, drug interaction  
 antihistaminic agent: DT, drug therapy  
 safflower oil: DT, drug therapy  
 safflower oil: TO, drug toxicity  
 interleukin 6: EC, endogenous compound  
 arachis oil: DT, drug therapy  
 sunflower oil: DT, drug therapy  
 unindexed drug

CAS REGISTRY NO.: (essential fatty acid) 11006-87-4; (linoleic acid)  
 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (arachidonic acid)  
 506-32-1, 6610-25-9, 7771-44-0; (icosapentaenoic acid)  
 25378-27-2, 32839-30-8; (docosahexaenoic acid) 25167-62-8,  
 32839-18-2; (gamma linolenic acid) 1686-12-0; (dihomogamma  
 linolenic acid) 1783-84-2, 7324-41-6; (leukotriene B4)  
 71160-24-2; (prostaglandin E2) 363-24-6; (thrombocyte  
 activating factor) 64176-80-3, 65154-06-5; (thromboxane A2)  
 57576-52-0; (prostaglandin I3) 68794-57-0; (leukotriene B5)  
 80445-66-5; (interleukin 2) 85898-30-2; (nitric oxide)  
 10102-43-9; (fish oil) 8016-13-5; (olive oil) 8001-25-0;  
 (primrose oil) 65546-85-2; (safflower oil) 8001-23-8;  
 (arachis oil) 8002-03-7, 8031-20-7; (sunflower oil)  
 8001-21-6

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ACCESSION NUMBER: 2003468972 EMBASE  
TITLE: Health benefits and potential risks related to consumption of fish or fish oil.  
AUTHOR: Sidhu K.S.  
CORPORATE SOURCE: K.S. Sidhu, Inst. for Environmental Toxicology, Michigan State University, C231 Holden Hall, East Lansing, MI 48824, United States. sidhuk@msu.edu  
SOURCE: Regulatory Toxicology and Pharmacology, (2003) Vol. 38, No. 3, pp. 336-344.  
Refs: 77  
ISSN: 0273-2300 CODEN: RTOPDW  
COUNTRY: United States  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 030 Pharmacology  
036 Health Policy, Economics and Management  
037 Drug Literature Index  
038 Adverse Reactions Titles  
052 Toxicology  
LANGUAGE: English  
SUMMARY LANGUAGE: English  
ENTRY DATE: Entered STN: 20031204  
Last Updated on STN: 20031204

ABSTRACT: The nutritional benefits of fish consumption relate to the utilization of proteins of high biological value, as well as certain minerals and vitamins that fish provide. Fish or fish oil contains omega-3 polyunsaturated fatty acids (PUFAs) that appear to play several useful roles for human health. Conversely, some carcinogenic contaminants are also stored in the adipose tissue of fish. The objective of this paper is to evaluate the potential health benefits and risks related to the consumption of fish or fish oil. Health benefits related to the consumption of fish or omega-3 PUFAs were obtained by an extensive literature search. Potential health risks related to carcinogenic contaminants (e.g., dioxin, PCB, etc.) in fish were estimated using the U.S. EPA-approved cancer risk assessment guidelines. Potential health risk estimates were evaluated by comparing them with the acceptable excess risk level of  $10(-6)$ - $10(-4)$ . Scientific data indicate that the consumption of fish or fish oil containing omega-3 PUFAs reduces the risk of coronary heart disease, decreases mild hypertension, and prevents certain cardiac arrhythmias and sudden death. Risk estimates in humans for carcinogenic environmental contaminants in fish ranged from an excess risk level of  $3 \times 10(-6)$ - $9 \times 10(-4)$ . These risk estimates appeared to meet the acceptable excess risk level criteria. Therefore, consumption of fish in accordance with the State of Michigan Fish Advisory Guidelines is safe and should be encouraged. The top 11 fish species [e.g., sardines, mackerel, herring (Atlantic and Pacific), lake trout, salmon (Chinook, Atlantic, and Sockeye), anchovy (European), sablefish, and bluefish] provide an adequate amount of omega-3 PUFAs (2.7-7.5g/meal) and appear to meet the nutritional recommendation of the American Heart Association. .COPYRGT. 2003 Elsevier Inc. All rights reserved.

CONTROLLED TERM: Medical Descriptors:  
\*food intake  
\*risk assessment  
\*health hazard  
\*nutrition  
fish  
food contamination  
United States  
cancer risk

cardiovascular risk  
 ischemic heart disease  
 borderline hypertension  
 heart arrhythmia  
 sudden death  
 stroke  
     **rheumatoid arthritis: DT, drug therapy**  
 diabetes mellitus  
 brain development  
 genital system  
 vision  
 depression  
 cancer  
 thrombocyte aggregation inhibition  
 antiarrhythmic activity  
 gastrointestinal disease: SI, side effect  
 blood clotting disorder: SI, side effect  
 metabolic disorder: SI, side effect  
 immunopathology: SI, side effect  
 hyperlipidemia: SI, side effect  
 drug cost  
 human  
 article  
 priority journal  
 Drug Descriptors:  
     \*fish oil: AE, adverse drug reaction  
     \*fish oil: DT, drug therapy  
     \*fish oil: PE, pharmacoeconomics  
     \*fish oil: PD, pharmacology  
     \*unsaturated fatty acid: AE, adverse drug reaction  
     \*unsaturated fatty acid: DT, drug therapy  
     \*unsaturated fatty acid: PE, pharmacoeconomics  
     \*unsaturated fatty acid: PD, pharmacology  
     carcinogen: TO, drug toxicity  
     dioxin: TO, drug toxicity  
     linoleic acid: AE, adverse drug reaction  
     linoleic acid: PE, pharmacoeconomics  
     **linoleic acid: PD, pharmacology**  
     gamma linolenic acid: AE, adverse drug reaction  
     gamma linolenic acid: PE, pharmacoeconomics  
     gamma linolenic acid: PD, pharmacology  
     arachidonic acid: AE, adverse drug reaction  
     arachidonic acid: PE, pharmacoeconomics  
     arachidonic acid: PD, pharmacology  
     icosapentaenoic acid: AE, adverse drug reaction  
     icosapentaenoic acid: DT, drug therapy  
     icosapentaenoic acid: PE, pharmacoeconomics  
     icosapentaenoic acid: PD, pharmacology  
     docosaheptaenoic acid: AE, adverse drug reaction  
     docosaheptaenoic acid: PE, pharmacoeconomics  
     docosaheptaenoic acid: PD, pharmacology  
     chlordane: TO, drug toxicity  
     chlorphenotane: TO, drug toxicity  
     dieldrin: TO, drug toxicity  
     endrin: TO, drug toxicity  
     heptachlor: TO, drug toxicity  
     mercury: TO, drug toxicity  
     mirex: TO, drug toxicity  
     polychlorinated biphenyl: TO, drug toxicity  
     campheclor: TO, drug toxicity

antithrombocytic agent: PD, pharmacology  
 antiarrhythmic agent: PD, pharmacology  
 CAS REGISTRY NO.: (fish oil) 8016-13-5; (linoleic acid) 1509-85-9, 2197-37-7,  
 60-33-3, 822-17-3; (gamma linolenic acid) 1686-12-0;  
 (arachidonic acid) 506-32-1, 6610-25-9, 7771-44-0;  
 (icosapentaenoic acid) 25378-27-2, 32839-30-8;  
 (docosahexaenoic acid) 25167-62-8, 32839-18-2; (chlordan) 12789-03-6, 57-74-9; (chlorphenotane) 50-29-3; (dieldrin) 13366-73-9, 60-57-1; (endrin) 72-20-8; (heptachlor) 33442-83-0, 76-44-8; (mercury) 14302-87-5, 7439-97-6; (mirex) 2385-85-5; (campheclor) 51394-15-1, 8001-35-2

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ACCESSION NUMBER: 2002059512 EMBASE  
 TITLE: Regulatory potential of n-3 fatty acids in immunological and inflammatory processes.  
 AUTHOR: Grimm H.; Mayer K.; Mayser P.; Eigenbrodt E.  
 CORPORATE SOURCE: Dr. H. Grimm, Dept. of Gen. and Thoracic Surgery, University of Giessen, Rudolf-Buchheim-Strasse 7, D-35385 Giessen, Germany. helmut.grimm@chiru.med.uni-giessen.de  
 SOURCE: British Journal of Nutrition, (2002) Vol. 87, No. SUPPL. 1, pp. S59-S67.  
 Refs: 83  
 ISSN: 0007-1145 CODEN: BJNUAV  
 COUNTRY: United Kingdom  
 DOCUMENT TYPE: Journal; General Review  
 FILE SEGMENT: 029 Clinical Biochemistry  
 026 Immunology, Serology and Transplantation  
 015 Chest Diseases, Thoracic Surgery and Tuberculosis  
 030 Pharmacology  
 039 Pharmacy  
 031 Arthritis and Rheumatism  
 048 Gastroenterology  
 018 Cardiovascular Diseases and Cardiovascular Surgery  
 037 Drug Literature Index  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 20020221  
 Last Updated on STN: 20020221

ABSTRACT: Over the last few years immunonutrition has gained increasing importance. Among other compounds lipids, especially n-3 polyunsaturated fatty acids, were shown to influence the immune response. The anti-inflammatory effects they exert can be induced by free fatty acids, triglyceride fatty acids, after incorporation into the membrane phospholipid bilayer or following metabolism to eicosanoids. n-3 Fatty acids influence inflammatory cell activation processes from signal transduction to protein expression even involving effects at the genomic level. n-3 Fatty acid-mediated mechanisms decreased cytokine-induced adhesion molecule expression, thereby reducing inflammatory leucocyte-endothelium interactions and modified lipid mediator synthesis, thus influencing the transendothelial migration of leucocytes and leucocyte trafficking in general. Even the metabolic repertoire of specific immunocompetent cells such as cytokine release or proliferation is modified by n-3 fatty acids. Beyond this they regulate lipid homeostasis shifting the metabolic pathways towards energy supply thus optimizing the function of immune cells. Due to the regulatory impact on different processes of inflammatory and immune cell activation n-3 fatty acids provide positive effects on various states of immune deficiencies and diseases with a hyperinflammatory character, among which selected examples are presented.

CONTROLLED TERM: Medical Descriptors:  
\*immunomodulation  
\*inflammation  
human  
nonhuman  
regulatory mechanism  
immune response  
antiinflammatory activity  
lipid metabolism  
phospholipid bilayer  
drug mechanism  
inflammatory cell  
cell activation  
signal transduction  
protein expression  
genome  
cell interaction  
leukocyte migration  
endothelium  
mediator release  
leukocyte motility  
immunocompetent cell  
cytokine release  
cell proliferation  
homeostasis  
energy metabolism  
cell function  
immune deficiency  
immunity  
fatty acid metabolism  
experimental transplantation  
lung injury: DT, drug therapy  
    **rheumatoid arthritis: TH, therapy**  
graft survival  
graft versus host reaction: DT, drug therapy  
drug screening  
heart disease: SU, surgery  
protection  
sepsis: DT, drug therapy  
lung insufficiency: DT, drug therapy  
diet supplementation  
enteritis: DT, drug therapy  
ulcerative colitis: DT, drug therapy  
ulcerative colitis: TH, therapy  
Crohn disease: TH, therapy  
Crohn disease: DT, drug therapy  
drug coating  
review  
Drug Descriptors:  
\*omega 3 fatty acid: PD, pharmacology  
\*omega 3 fatty acid: DT, drug therapy  
\*omega 3 fatty acid: DV, drug development  
\*omega 3 fatty acid: PO, oral drug administration  
lipid: EC, endogenous compound  
fatty acid: EC, endogenous compound  
membrane phospholipid: EC, endogenous compound  
icosanoid: EC, endogenous compound  
cytokine: EC, endogenous compound  
cell adhesion molecule: EC, endogenous compound  
fish oil: DT, drug therapy

fish oil: PD, pharmacology  
 fish oil: DV, drug development  
 fish oil: PO, oral drug administration  
 fish oil: PR, pharmaceuticals  
 immunosuppressive agent: DV, drug development  
 immunosuppressive agent: DT, drug therapy  
 immunosuppressive agent: PD, pharmacology  
 icosapentaenoic acid: DV, drug development  
 icosapentaenoic acid: PD, pharmacology  
 icosapentaenoic acid: DT, drug therapy  
 linoleic acid: DV, drug development  
   **linoleic acid: DT, drug therapy**  
 linoleic acid: IV, intravenous drug administration  
   **linoleic acid: PD, pharmacology**

omega 6 fatty acid

antiinflammatory agent: DT, drug therapy  
 antiinflammatory agent: CB, drug combination  
 steroid: DT, drug therapy  
 steroid: CB, drug combination  
 mesalazine: DT, drug therapy  
 mesalazine: CB, drug combination

CAS REGISTRY NO.: (lipid) 66455-18-3; (fish oil) 8016-13-5; (icosapentaenoic acid) 25378-27-2, 32839-30-8; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3; (mesalazine) 89-57-6

L179 ANSWER 53 OF 58 EMBASE ·COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 95072150 EMBASE

DOCUMENT NUMBER: 1995072150

TITLE: [Nutritional influences in rheumatoid arthritis].  
 ERNAHRUNGSEINFLUSSE BEI RHEUMATOIDER ARTHRITIS.

AUTHOR: Kupper C.

CORPORATE SOURCE: Freiburger Strasse 64, D-50859 Koln, Germany

SOURCE: Fortschritte der Medizin, (1995) Vol. 113, No. 5, pp. 20+22.

ISSN: 0015-8178 CODEN: FMDZAR

COUNTRY: Germany

DOCUMENT TYPE: Journal; Conference Article

FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology  
 029 Clinical Biochemistry  
 031 Arthritis and Rheumatism  
 037 Drug Literature Index

LANGUAGE: German

ENTRY DATE: Entered STN: 950405

Last Updated on STN: 950405

CONTROLLED TERM: Medical Descriptors:

\*diet

\*nutrition

**\*rheumatoid arthritis: ET, etiology**

**\*rheumatoid arthritis: DT, drug therapy**

conference paper

human

oral drug administration

Drug Descriptors:

\*alpha tocopherol: DT, drug therapy

\*antioxidant: DT, drug therapy

\*cytokine: EC, endogenous compound

\*icosanoid: EC, endogenous compound

**\*linoleic acid: DT, drug therapy**

arachidonic acid: EC, endogenous compound



CAS REGISTRY NO.: (alpha tocopherol) 1406-18-4, 1406-70-8, 52225-20-4,  
58-95-7, 59-02-9; (linoleic acid) 1509-85-9, 2197-37-7,  
60-33-3, 822-17-3; (arachidonic acid) 506-32-1, 6610-25-9,  
7771-44-0

L179 ANSWER 54 OF 58 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights  
reserved on STN

ACCESSION NUMBER: 92068992 EMBASE

DOCUMENT NUMBER: 1992068992

TITLE: Evening primrose oil in patients with rheumatoid arthritis  
and side-effects of non-steroidal anti-inflammatory drugs.

AUTHOR: Brzeski M.; Madhok R.; Capell H.A.

CORPORATE SOURCE: Rheumatic Diseases Centre, Stoke Mandeville  
Hospital, Aylesbury, HP21 8AL, United Kingdom

SOURCE: British Journal of Rheumatology, (1991) Vol. 30, No. 5, pp.  
370-372.

ISSN: 0263-7103 CODEN: BJRHDF

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 031 Arthritis and Rheumatism  
037 Drug Literature Index  
038 Adverse Reactions Titles

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 920329

Last Updated on STN: 920329

ABSTRACT: Forty patients with rheumatoid arthritis and upper gastrointestinal  
lesions due to non-steroidal anti-inflammatory drugs entered a prospective  
6-month double-blind placebo controlled study of dietary supplementation with  
gamma-linolenic acid 540 mg/day. Nineteen patients received active therapy (as  
evening primrose oil 6 g/day) and 21 received placebo (olive oil 6 g/day). No  
patient stopped non-steroidal anti-inflammatory therapy but three patients in  
each group reduced their dose. Other results showed a significant reduction in  
morning stiffness with gamma-linolenic acid at 3 months and reduction in pain  
and articular index at 6 months with olive oil. Whilst gamma-linolenic acid  
may produce mild improvement in rheumatoid arthritis, olive oil may itself have  
hitherto unrecognized benefits.

CONTROLLED TERM: Medical Descriptors:

\*digestive system injury: SI, side effect

\*rheumatoid arthritis: DT, drug therapy  
article

clinical article

diet supplementation

double blind procedure

female

human

male

priority journal

prospective study

Drug Descriptors:

\*nonsteroid antiinflammatory agent: AE, adverse drug  
reaction

\*primrose oil: DT, drug therapy

gamma linolenic acid: DT, drug therapy

linoleic acid: DT, drug therapy

olive oil: DT, drug therapy

CAS REGISTRY NO.: (primrose oil) 65546-85-2; (gamma linolenic acid)  
1686-12-0; (linoleic acid) 1509-85-9, 2197-37-7, 60-33-3,  
822-17-3; (olive oil) 8001-25-0

L179 ANSWER 55 OF 58 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 90271845 EMBASE  
 DOCUMENT NUMBER: 1990271845  
 TITLE: The influence of a fish oil dietary supplement on immunogenic keratitis.  
 AUTHOR: Verbey N.L.J.; Van Haeringen N.J.  
 CORPORATE SOURCE: Eye Hospital, Schiedamsevest 180,3011 BH Rotterdam, Netherlands  
 SOURCE: Investigative Ophthalmology and Visual Science, (1990) Vol. 31, No. 8, pp. 1526-1532.  
 ISSN: 0146-0404 CODEN: IOVSDA  
 COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article  
 FILE SEGMENT: 012 Ophthalmology  
 026 Immunology, Serology and Transplantation  
 037 Drug Literature Index  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English  
 ENTRY DATE: Entered STN: 911213  
 Last Updated on STN: 911213

ABSTRACT: Fish lipids contain large amounts of eicosapentaenoic acid (EPA) and docosahexaenoic acid. These fatty acids are known to have an influence on prostaglandin (PG) and leukotriene (LT) synthesis. We studied the effect of a fish oil dietary supplement on an immune-complex-induced keratitis of the rabbit eye and compared it with the effect of a sunflower seed oil dietary supplement, rich in linoleic acid. Immune complex keratitis induced by intrastromal injection of human serum albumin (HSA) was characterized by leukocyte infiltrate, neovascularization, and corneal edema. Animals given a fish oil diet showed significantly less leukocyte infiltrate, neovascularization, and corneal edema, compared to those given a sunflower seed oil diet.

CONTROLLED TERM: Medical Descriptors:  
 \*immune complex disease  
 \*keratitis: DT, drug therapy  
 biological model  
 rabbit  
 animal experiment  
 nonhuman  
 article  
 priority journal  
 Drug Descriptors:  
 \*docosahexaenoic acid: PD, pharmacology  
 \*docosahexaenoic acid: CB, drug combination  
 \*docosahexaenoic acid: CM, drug comparison  
 \*docosahexaenoic acid: DT, drug therapy  
 \*fish oil: PD, pharmacology  
 \*fish oil: DT, drug therapy  
 \*fish oil: CB, drug combination  
 \*fish oil: AN, drug analysis  
 \*icosapentaenoic acid: CM, drug comparison  
 \*icosapentaenoic acid: CB, drug combination  
 \*icosapentaenoic acid: DT, drug therapy  
 \*icosapentaenoic acid: PD, pharmacology  
 \*linoleic acid: PD, pharmacology  
 \*linoleic acid: DT, drug therapy  
 \*linoleic acid: CM, drug comparison  
 \*sunflower oil: PD, pharmacology

\*sunflower oil: DT, drug therapy  
\*sunflower oil: CM, drug comparison  
CAS REGISTRY NO.: (docosahexaenoic acid) 25167-62-8, 32839-18-2; (fish oil)  
8016-13-5; (icosapentaenoic acid) 25378-27-2, 32839-30-8;  
(linoleic acid) 1509-85-9, 2197-37-7, 60-33-3, 822-17-3;  
(sunflower oil) 8001-21-6

L179 ANSWER 56 OF 58 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on  
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ACCESSION NUMBER: 2003:141977 BIOSIS

DOCUMENT NUMBER: PREV200300141977

TITLE: Efficacy of Systemic Linoleic and Gamma-linolenic Acid  
Therapy in Dry Eye Syndrome with Inflammatory Component.

AUTHOR(S): Barabbino, S. [Reprint Author]; Rolando, M. [Reprint  
Author]; Camicione, P. [Reprint Author]; Zanardi, S.; Cro,  
M.; Giuffrida, S.; Calabria, G. [Reprint Author]

CORPORATE SOURCE: Neurological/Vision Sciences, University of Genoa, Genoa,  
Italy

SOURCE: ARVO Annual Meeting Abstract Search and Program Planner,  
(2002) Vol. 2002, pp. Abstract No. 51. cd-rom.

Meeting Info.: Annual Meeting of the Association For  
Research in Vision and Ophthalmology. Fort Lauderdale,  
Florida, USA. May 05-10, 2002.

DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 19 Mar 2003

Last Updated on STN: 19 Mar 2003

ABSTRACT: Purpose: To evaluate the efficacy and the anti-inflammatory activity  
of the systemic use of linoleic (LA) and gamma-linolenic acid (GLA), which have  
been demonstrated to decrease the chronic inflammatory state in  
\*\*\*rheumatoid\*\*\* arthritis, on the ocular surface of patients with  
keratoconjunctivitis sicca. Methods: In a randomized clinical trial twenty-six  
dry eye subjects, average age 49.5+-9.2 years, with aqueous deficient  
keratoconjunctivitis sicca were consecutively selected from patients seeking  
consultation at the Anterior Surface Diseases Center of the Department of  
Neurological and Vision Sciences of the University of Genoa. The diagnosis was  
made on: dry eye symptom survey score>14, Schirmer I values (without  
anesthesia)<5 mm/5 minutes, positive vital staining with lissamine green  
(graded 0 to 9 according to Van Bijsterveld score system)<3.5, fluorescein  
break up time (FBUT)<7 sec. All patients showed ocular surface inflammation  
studied by the expression of HLA DR, a Major Hystocompatibility Class II  
antigen, tested on epithelial bulbar conjunctiva samples. The subjects were  
randomly divided into two groups, with no statistical differences in age,  
symptoms, signs or ocular surface inflammation at baseline. The study group  
(n=13) was treated orally with tablets containing LA (28,5 mg) and GLA (15 mg)  
twice daily for 45 days, the control group was treated with a tear substitute  
alone with the same frequency than the study group. Results: A statistically  
significant change in symptoms (p<0.005), lissamine green staining (p<0.005)  
and ocular surface inflammation (p<0.05) was observed in the study group  
compared to the control group. The HLA DR expression varied from 58.5+-14.1%  
positive conjunctival cells to 41.3+-18.9% for the treated group and from  
61.4+-21.9% to 58.0+-13.3% for the untreated group. No statistically  
significant difference between groups was recorded for FBUT and Schirmer I  
test. Conclusion: Systemic therapy with LA and GLA, additionally to tear  
substitutes, is able to reduce ocular surface inflammation and to improve  
symptoms in dry eye patients. But long-term studies are needed to confirm the  
role of this new therapy for keratoconjunctivitis sicca.

CONCEPT CODE: General biology - Symposia, transactions and proceedings  
00520

Biochemistry studies - Lipids 10066  
 Pathology - Therapy 12512  
 Sense organs - Physiology and biochemistry 20004  
 Sense organs - Pathology 20006  
 Pharmacology - General 22002  
 Pharmacology - Clinical pharmacology 22005  
 Pharmacology - Connective tissue, bone and collagen-acting drugs 22012  
 Pharmacology - Sense organs, associated structures and functions 22031

INDEX TERMS: Major Concepts  
 Pharmacology; Sense Organs (Sensory Reception)

INDEX TERMS: Diseases  
 dry eye syndrome: eye disease, therapy  
 Dry Eye Syndromes (MeSH)

INDEX TERMS: Chemicals & Biochemicals  
 gamma linoleic acid: antiinflammatory-drug,  
 ophthalmic-drug; **linoleic acid:**  
**antiinflammatory-drug, ophthalmic-drug**

ORGANISM: Classifier  
 Hominidae 86215  
 Super Taxa  
 Primates; Mammalia; Vertebrata; Chordata; Animalia  
 Organism Name  
 human (common): middle age  
 Taxa Notes  
 Animals, Chordates, Humans, Mammals, Primates,  
 Vertebrates

REGISTRY NUMBER: 60-33-3 (linoleic acid)

L179 ANSWER 57 OF 58 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on  
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ACCESSION NUMBER: 2001:284885 BIOSIS  
 DOCUMENT NUMBER: PREV200100284885  
 TITLE: Docosahexaenoic acid suppresses function of the CD28  
 costimulatory membrane receptor in primary murine and  
 Jurkat T cells.

AUTHOR(S): Arrington, Jennifer L.; McMurray, David N.; Switzer,  
 Kirsten C.; Fan, Yang-Yi; Chapkin, Robert S. [Reprint  
 author]

CORPORATE SOURCE: Faculty of Nutrition, Texas A and M University, College  
 Station, TX, USA  
 r-chapkin@tamu.edu

SOURCE: Journal of Nutrition, (April, 2001) Vol. 131, No. 4, pp.  
 1147-1153. print.  
 CODEN: JONUAI. ISSN: 0022-3166.

DOCUMENT TYPE: Article  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 13 Jun 2001  
 Last Updated on STN: 19 Feb 2002

ABSTRACT: (n-3) Polyunsaturated fatty acids (PUFA) have been widely documented  
 to reduce inflammation in diseases such as **rheumatoid**  
**\*\*\*arthritis\*\*\*** This study sought to elucidate the mechanism whereby (n-3)  
 PUFA downregulate T-cell proliferation. We hypothesized that membrane  
 incorporation of dietary PUFA would alter membrane structure and consequently  
 membrane receptor function. Female C57BL/6 mice were fed for 14 d one of three  
 diets containing arachidonic acid (AA), fish oil or docosahexaenoic acid (DHA)  
 that varied in lipid composition only. Spleens were harvested and T cells  
 (apprx90% purity) were activated with agonists that stimulated proliferation at  
 the receptor level (anti-CD3 (alphaCD3)/anti-CD28 (alphaCD28)), intracellularly

(phorbol-12-myristate-13-acetate (PMA)/ionomycin) or with a combined receptor/intracellular agonist (alphaCD3/PMA). Although there was no significant difference ( $P > 0.05$ ) in proliferative response across dietary groups within each agonist set, interleukin (IL)-2 secretion was significantly reduced ( $P = 0.05$ ) in cells from DHA-fed mice stimulated with alphaCD3/alphaCD28. In parallel in vitro experiments, Jurkat T cells were incubated with 50  $\mu\text{mol/L}$  linoleic acid, AA, or DHA. Similar agonists sets were employed, and cells incubated with DHA and AA had a significantly reduced ( $P < 0.05$ ) IL-2 secretion in three of the agonist sets. However, only when the CD28 receptor was stimulated was there a significant difference ( $P < 0.05$ ) between DHA and AA. The results of this study suggest the involvement of the CD28 receptor in reducing IL-2 secretion in DHA-fed mice and DHA-incubated Jurkat cells and that purified T cells from DHA-fed mice require accessory cells to modulate proliferative suppression.

CONCEPT CODE:      Animal production - Feeds and feeding      26504  
                          Cytology - Animal      02506  
                          Cytology - Human      02508  
                          Biochemistry studies - General      10060  
                          Biochemistry studies - Proteins, peptides and amino acids  
                          10064  
                          Biochemistry studies - Lipids      10066  
                          Biophysics - Membrane phenomena      10508  
                          Nutrition - General studies, nutritional status and methods  
                          13202  
                          Blood - Blood and lymph studies      15002  
                          Blood - Blood cell studies      15004  
                          Immunology - General and methods      34502

INDEX TERMS:      Major Concepts  
                          Membranes (Cell Biology); Nutrition

INDEX TERMS:      Parts, Structures, & Systems of Organisms  
                          T cells: blood and lymphatics, immune system; spleen:  
                          blood and lymphatics, immune system

INDEX TERMS:      Chemicals & Biochemicals  
                          CD28 costimulatory membrane receptor; alpha-CD3/PMA  
                          [alpha-CD3/phorbol 12-myristate 13-acetate]:  
                          receptor/intracellular agonist; anti-CD3: agonist,  
                          proliferation stimulant; arachidonic acid:  
                          polyunsaturated fatty acid; docosahexaenoic acid: T cell  
                          proliferation downregulator, polyunsaturated fatty acid;  
                          interleukin-2 [IL-2]: secretion; ionomycin: agonist,  
                          intracellular proliferation stimulant; **linoleic**  
                          **acid**; lipid: composition; phorbol 12-myristate  
                          13-acetate: agonist, intracellular proliferation  
                          stimulant

INDEX TERMS:      Methods & Equipment  
                          incubation: cell culture method

INDEX TERMS:      Miscellaneous Descriptors  
                          arachidonic acid diet: animal feed; docosahexaenoic acid  
                          diet: animal feed; fish oil diet: animal feed, fats and  
                          oils

ORGANISM:      Classifier  
                          Hominidae      86215  
                          Super Taxa  
                          Primates; Mammalia; Vertebrata; Chordata; Animalia  
                          Organism Name  
                          Jurkat cell line cell line: human leukemia cells  
                          Taxa Notes  
                          Animals, Chordates, Humans, Mammals, Primates,  
                          Vertebrates

ORGANISM:      Classifier

Muridae 86375  
 Super Taxa  
 Rodentia; Mammalia; Vertebrata; Chordata; Animalia  
 Organism Name  
 mouse: animal model, female, strain-C57BL/6  
 Taxa Notes  
 Animals, Chordates, Mammals, Nonhuman Vertebrates,  
 Nonhuman Mammals, Rodents, Vertebrates

REGISTRY NUMBER: 506-32-1 (arachidonic acid)  
 6217-54-5Q (docosahexaenoic acid)  
 25167-62-8Q (docosahexaenoic acid)  
 32839-18-2Q (docosahexaenoic acid)  
 56092-81-0 (ionomycin)  
 60-33-3 (linoleic acid)  
 16561-29-8 (phorbol 12-myristate 13-acetate)

L179 ANSWER 58 OF 58 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on  
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ACCESSION NUMBER: 1994:315717 BIOSIS  
 DOCUMENT NUMBER: PREV199497328717  
 TITLE: Increased TGF-beta and decreased oncogene expression by  
 omega-3 fatty acids in the spleen delays onset of  
 autoimmune disease in B/W mice.  
 AUTHOR(S): Fernadnes, Gabriel [Reprint author]; Bysani, Chandrasekar;  
 Venkatraman, Jaya T.; Tomar, Vikram; Zhao, Weiguo  
 CORPORATE SOURCE: Dep. Med., University Texas Health Sci. Center, 7703 Floyd  
 Curl Dr., San Antonio, TX 78284-7874, USA  
 SOURCE: Journal of Immunology, (1994) Vol. 152, No. 12, pp.  
 5979-5987.  
 CODEN: JOIMA3. ISSN: 0022-1767.  
 DOCUMENT TYPE: Article  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 26 Jul 1994  
 Last Updated on STN: 27 Jul 1994

ABSTRACT: This study was designed to investigate the mechanisms by which marine lipids rich in long chain omega-3 fatty acids inhibit autoimmune disease and prolong the survival rate in female (NZB/NZW) F1 (B/W) mice, an animal model for human SLE. Nutritionally adequate semipurified diets containing at 10% either corn oil (CO) or fish oil (FO) were fed from 1 mo of age and were monitored for proteinuria and survival. Proteinuria was detected earlier and became progressively severe in CO-fed mice. The average life span was significantly shortened by the CO diet (266.7 days +/- 12.5), whereas FO extended the survival significantly (402.1 days +/- 26.1; p < 0.001). A cross-sectional study at 6.5 mo of age revealed an increased proliferative response to T cell mitogens including bacterial superantigens and decreased serum anti-dsDNA Ab titers in the FO group compared with the CO group. Furthermore, splenocytes from the FO group when stimulated with Con A had higher IL-2 and lower IL-4 production similar to that of young (3.5 mo) mice. Flow cytometric analyses of splenocytes revealed lower Ig+, higher lymphocyte endothelial cell adhesion molecule-1, and lower Pgp-1+ cells within CD4+ and CD8+ subsets in FO-fed mice. Also, elevated IL-2 and IL-4 and significantly higher TGF-beta-1 and lower c-myc and c-ras mRNA expression and higher TGF-beta-1 and significantly lower c-Myc and c-Ha-Ras proteins were detected in spleens of FO-fed mice. Fatty acid analysis revealed significantly higher linoleic (18:2-omega-6) and arachidonic (20:omega-6) acid levels in splenocytes of the CO-fed group and higher eicosapentanoic (20:5-omega-3) and docosahexanoic (22:6-omega-3) acid levels in the FO-fed group, indicating that changes in membrane fatty acid composition may contribute to the altered immune function and gene expression during the development of murine SLE.  
 CONCEPT CODE: Cytology - Animal 02506

Genetics - Animal 03506  
 Biochemistry studies - Lipids 10066  
 Replication, transcription, translation 10300  
 Biophysics - Membrane phenomena 10508  
 Pathology - Inflammation and inflammatory disease 12508  
 Pathology - Therapy 12512  
 Metabolism - Lipids 13006  
 Metabolism - Proteins, peptides and amino acids 13012  
 Nutrition - Pathogenic diets 13216  
 Nutrition - Prophylactic and therapeutic diets 13218  
 Nutrition - Lipids 13222  
 Food technology - Fats and oils 13514  
 Food technology - Fish and other marine and freshwater products 13522  
 Food technology - Evaluations of physical and chemical properties 13530  
 Blood - Blood cell studies 15004  
 Blood - Lymphatic tissue and reticuloendothelial system 15008  
 Urinary system - Pathology 15506  
 Endocrine - General 17002  
 Bones, joints, fasciae, connective and adipose tissue - Pathology 18006  
 Development and Embryology - Morphogenesis 25508  
 Laboratory animals - General 28002  
 Immunology - Immunopathology, tissue immunology 34508

## INDEX TERMS:

Major Concepts  
 Blood and Lymphatics (Transport and Circulation);  
 Endocrine System (Chemical Coordination and Homeostasis); Genetics; Immune System (Chemical Coordination and Homeostasis); Membranes (Cell Biology); Molecular Genetics (Biochemistry and Molecular Biophysics); Nutrition; Skeletal System (Movement and Support); Urinary System (Chemical Coordination and Homeostasis)

## INDEX TERMS:

Chemicals & Biochemicals  
**LINOLEIC ACID**; ARACHIDONIC ACID;  
 EICOSAPENTAENOIC ACID; DOCOSAHEXAENOIC ACID

## INDEX TERMS:

Miscellaneous Descriptors  
 ANTI-DOUBLE STRANDED DNA ANTIBODY; ARACHIDONIC ACID;  
 C-MYC GENE; C-RAS GENE; CORN OIL DIET; DOCOSAHEXAENOIC ACID; EICOSAPENTAENOIC ACID; FISH OIL DIET;  
 IMMUNOGLOBULIN; INTERLEUKIN-2 PRODUCTION; INTERLEUKIN-4 PRODUCTION; LINOLEIC ACID; LYMPHOCYTE ENDOTHELIAL CELL ADHESION MOLECULE-1; MEMBRANE FATTY ACID COMPOSITION CHANGE; PGP-1; PROTEINURIA; SURFACE MOLECULE EXPRESSION; SURVIVAL EXTENSION; **SYSTEMIC LUPUS**  
**ERYTHEMATOSUS** MODEL; T CELL PROLIFERATIVE RESPONSE; TRANSFORMING GROWTH FACTOR-BETA

## ORGANISM:

Classifier  
 Muridae 86375  
 Super Taxa  
 Rodentia; Mammalia; Vertebrata; Chordata; Animalia  
 Organism Name  
 Muridae  
 Taxa Notes  
 Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

## REGISTRY NUMBER:

60-33-3 (LINOLEIC ACID)  
 506-32-1 (ARACHIDONIC ACID)

10417-94-4Q (EICOSAPENTAENOIC ACID)  
25378-27-2Q (EICOSAPENTAENOIC ACID)  
32839-30-8Q (EICOSAPENTAENOIC ACID)  
6217-54-5Q (DOCOSAHEXAENOIC ACID)  
25167-62-8Q (DOCOSAHEXAENOIC ACID)  
32839-18-2Q (DOCOSAHEXAENOIC ACID)

=>